THE

MEDICAL JOURNAL OF AUSTRALIA

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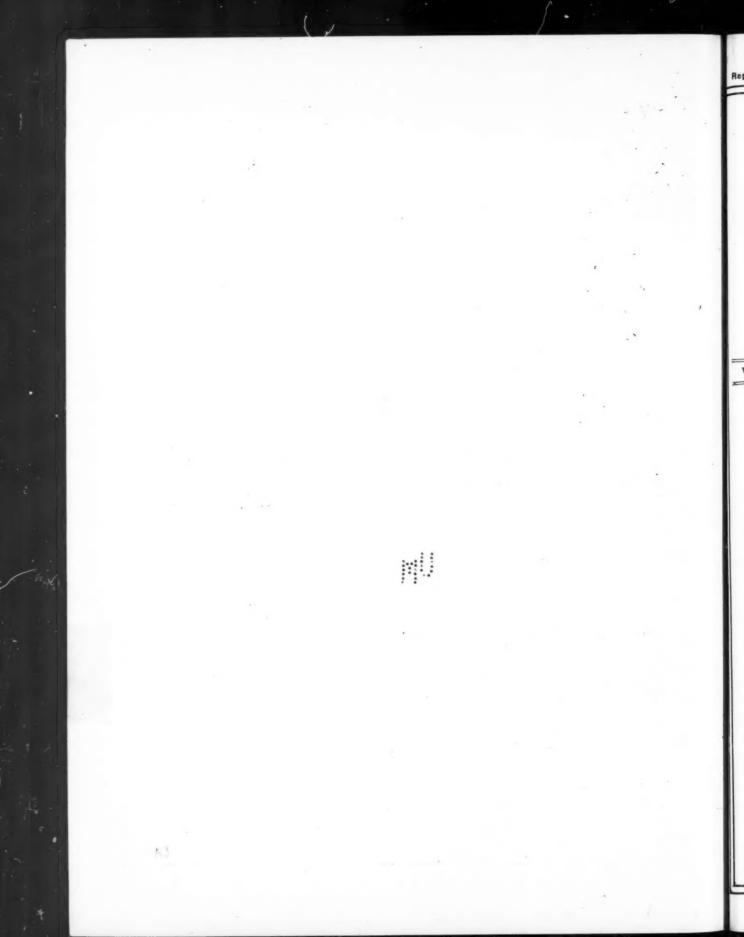
Volume I-1945

JANUARY TO JUNE

EDITOR:

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1945



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MEDICAL



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VOL. I .- 32ND YEAR.

SYDNEY, SATURDAY, JANUARY 6, 1945.

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An Address.'

By DAVID ROSEBY,

Retiring President of the Victorian Branch of the British Medical Association.

THE past twelve months have been so rich in subjects for a presidential address that it would have been easy to choose a single one. Convocation alone, held in the early part of 1944, contained such a wealth of them that it would give a false perspective of the work of the Branch if one only were selected.

It has been a remarkable year. The war continues, but we in Australia are feeling now that danger to our shores is not so imminent as it was. Lulled by a sense of physical security, those in authority are planning for social security. They are determined that they shall improve on methods tried out in New Zealand, Britain and elsewhere. We of the British Medical Association have had to bestir our-When one problem had been raised, another presented itself. There was an act of Parliament passed-The Pharmaceutical Benefits Aci. There were visits to other States; comings and goings to Canberra, a Federal referendum, consultations with ministers, meetings of the Federal Council, eighteen meetings of the Victorian Council, and meetings of many subcommittees besides.

So varied has been this year of office that I feel that it is my duty to take the whole of it in survey.

The hope was expressed that it would fall to my lot to lead the profession in the year in which it would be subjected to the most strain-in the year when the clash would occur between medical men and those who would take away from them their freedom. I would rather have had it that way, but it appears that Dr. John Dale, my successor, will bear the burden--a heritage which I bequeath him in the full knowledge that his broad shoulders were specially designed for such a purpose.

¹ Delivered at the annual meeting of the Victorian Branch of the British Medical Association on December 6, 1944.

Hardly had you elected me when Sir Henry Newland, our Federal President, forwarded to the Government his letter containing our views in regard to the proposed Pharmaceutical Benefits Bill.

There were the historic visit of Sir Howard Florey, Dr. S. A. Smith's Sir Richard Stawell Oration, and the address of Dr. Charles McLaren, professor of psychology in Korea (which chair he established), who spoke to us of Korea and Japan.

Lastly in point of time, but actually of paramount importance, was the visit to New Zealand of Dr. Dickson, our esteemed Victorian Secretary, with Dr. John Hunter, who holds a similar position in New South Wales and is also our Federal Secretary.

There is one theme which flowed throughout every event of the year as a Wagnerian Leitmotif-it was our struggle for freedom-freedom to carry out our daily tasks according to the traditions of practice which have existed. for thousands of years. As a counter melody there has been our determination to see both on the preventive and curative sides of practice, that nothing but the very best. in our power is good enough for the citizens of our country.

We had been promised by the former government that while war was being fought we were not to have interference with the conditions of practice. It seemed only fair; so many of our colleagues have volunteered for active service and some of them are prisoners of war. It would not be right for us to agree to a change in the method of attending the public whereby the interests of those who had gone away were jeopardized. Nor would it be just to those young doctors who have not yet tried their wings in practice, to find that we had "dug ourselves in" in their absence.

A succeeding government claimed, however, that the promise of the former government did not hold. "You see". they say, "an election has been held since that promise was: given. There is a new government and a new minister." In vain we said that it was the same party in power, and the same persons were cabinet ministers; that it was the same war and the same doctors were absent from practice. The result was the Pharmaceutical Benefits Act and all that followed it.

Sir Henry Newland first, and then the Federal Council, stated our position very clearly to the Minister of Health:

We, the representatives of the medical profession, recognize fully that the restoration to health and the alleviation of suffering should be our paramount considerations.

Holding this opinion, we consider that it is essential that in the acceptance of responsibility for the treatment of the sick the medical profession must be entirely untrammelled in regard to the therapeutic measures to be adouted.

For this reason we feel that the welfare of the sick would be seriously jeopardized by the adoption of any scheme which would limit the freedom of a doctor in prescribing for each of his patients exactly what medicine he regards as most suitable to restore him to health.

Is it not reasonable that a doctor should be free to order what he considers is best for his patient?

There is to be a formulary. Add to it any substance or a few grains in excess of the amount in the formula, and your so-called free bottle of medicine is to be charged at the cost of the whole of the ingredients.

I do not believe that the politicians who framed this act really believe that the public will benefit if the medical men are chained to the formulary and to the act, but they are creatures of their own machine, and cannot escape it. As one Minister put it: "The New Zealand scheme, where the Government pays the chemists' bills irrespective of what is prescribed, has got away from the Government; it is too expensive, so we are going to tie the system up in Australia."

We suggested that a corporate body containing a majority of medical men could correct any abuses, but our advice was ignored.

Dr. H. Boyd Graham, two years ago, in an address to our Association, drew attention to the unrest in the medical profession occasioned by threatened governmental action. This, he stated, was an interference with a depleted profession at a time when its real function was to heal the sick. During this year that unrest had increased to boiling point because there was introduced into the Pharmaceutical Benefits Act a clause which gives power to the Government to nationalize the profession. Colour was lent to the idea of a nationalized profession by the propaganda issued by the Government to induce the public to vote "Yea" to give them increased powers over health matters. That they knew they had not those powers when they passed the Pharmaceutical Benefits Act was obvious when they pointed out, four months after passing it, that the Federal Government is restricted in its powers over health to quarantine.

Your Council was aware of Parliament's constitutional difficulty because it had taken the precaution to take learned counsel's opinion, but, notwithstanding the future hurdle of the High Court and the adverse vote at the referendum, the ministry publicly maintains that it will bring the act into effect in 1945. The act, however, does not compel us to use the formulary or the forms to be We shall still be able to issued by the Government. exercise our free will in this regard. Our Federal Council has requested us not to use the formulary or the forms, and, no doubt, we shall do as they ask. Members of our Association will, almost certainly, be told by the Government that large numbers of them are not adhering to the request of the Federal Council; but I would warn those members who are susceptible to it that the new propaganda to which we are being subjected daily would include such a public statement in its "set up" in order to undermine the authority of those whom we have elected to speak on our behalf to the Government.

There is to be a contract between the doctor and the Government. At present, our doctor-patient relationship is such that the patient consults us knowing that the interview is a confidential one. Under a government scheme it cannot be confidential; there must be forms, records, cards and reports.

A new governmental activity is at hand. There will be boards and committees. The friendly society system, with all its faults, was never as this system promises to be. There are penalties in the act. Lest you think the new branch of the Health Department may fine the other fellow and not you, hear the late Lord Hewart, Lord Chief Justice of England, in his book "The New Despotism" in words, often quoted, but not nearly often enough to teach us a lesson ere it is too late to learn it.

As an example of present despotic bureaucracy, consider the treatment of panel doctors under the National Insurance Acts which is "pure despotism". The doctors are liable, at the mere discretion of the official who acts for the Minister of Health, to be ruined professionally by being struck off the panel, or as a lesser punishment, to be fined to an arbitrary extent. In one instance, a fine of one thousand pounds was imposed on two doctors who carried on business in partnership. "Excessive prescribing", an offence wholly unknown to the law, which consists in prescribing for the patient medicines which are too expensive in quality or too liberal in quantity, is one of the things for which a doctor may be penalized. One might think that for a person who is bound by law to insure and pay contributions under the acts, the best medicine ought to be prescribed in illness. . . One might wonder whether, in this matter, the interests of patients are adequately taken into consideration.

There are some medical men who refuse to defile themselves with politics. They console themselves by repeating that during political disturbances, such as the French Revolution and the industrial revolution in Britain, the medical profession pursued its even tenor in helping the sick. They, however, were not threatened directly by governments. The worthy doctors of other times were not threatened as in the Pharmaceutical Benefits Act of 1944, with a fine of fifty pounds or three months' gaol if they prescribed over the telephone for an asthmatic or repeated the cough mixture for a chronic sufferer. No doctor in these times, in Australia, can stand aloof from medical politics; it is part of his life and his livelihood.

The Beveridge scheme in Britain is to cost six hundred and fifty million pounds per year for social services. The Australian Government should spend proportionately some ninety million pounds. It has secured only thirty-five million pounds per annum to carry out schemes which will cost much more than that amount. Hence, we shall have to cut our coat according to our financial cloth and so efficiency will be sacrificed to that financial acrobatic procedure known as "balancing the budget".

Here, I wish to recall to your mind that, when the National Health and Pensions Insurance Act of 1938 was in the state of development, not the best medical brains in preventive and curative medicine were called to Australia to develop a great national medical scheme to be the best in the world, but an actuary, Sir Walter Kinnear, came. With him and the Treasury officials argument ensued with our Federal Council.

Questions whether there should be additional fees of one or two shillings per person per year for anæsthetics engaged the attention of both parties, the chief consideration of the Treasury officials being whether the fund would stand the expense. It appears that the part to be played by the Treasury will be the major one in the development of a health scheme. For our part, we have been reminded many times that we have few votes at the ballot box, but, as a matter of fact, we know quite a number of people who have votes.

Perhaps the most impudent request made by a government to a section of its citizens was that the Ministry expected that the honorary medical officers of hospitals should continue to give honorary service under the new conditions. The means test is to be abolished under a new system of payment to hospitals. That persons who derive their living from an occupation should be asked to work for the State for no remuneration at all is quite contrary to radical opinion. Not only should the Government not ask this to be done, but it actually should insist on payment to medical men who work for it. Once the means test is abolished and wealthy persons are admitted to public wards, medical men should be paid. How much? Not less than the full value of their services! It would have been only fair for the Government, at the same time as it

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announced its financial plans for the hospitals, to state how much it intended to pay the medical staff, and whether on a sessional or yearly basis. Failing this system, the Government should pass legislation, as in the Argentine, where honorary medical officers to hospitals are exempt from taxation!

I turn now to what I consider is a matter of great concern to Australians as a nation. The statements made about the medical profession in Parliament during the past six years, dating from the National Health and Pensions Insurance Act of the Menzies Government, subsequently in the Victorian amending Medical Act, and finally in the Commonwealth Pharmaceutical Benefits Act, coupled with references to us in the campaign for the transference of State powers to the Commonwealth and with the many interviews we have had with those in authority, show a deficiency of knowledge of our profession and of the medical needs of the people. They give rise to the uncomfortable feeling that if this lack of knowledge, so evident in our case, is general in regard to other matters which affect the lives of every citizen, then the outlook for our country is serious in the post-war years.

During the past one hundred and fifty years, a qualifying examination has been demanded for our profession, and gradually there has developed the demand that workers should pass an examination before claiming rewards or wages for service. Allied to our profession, pharmacists, dentists, masseurs and nurses have to qualify, and, in the non-professional groups, plumbers, electricians, motor mechanics, aye, and even those who must serve their apprenticeship before gaining the full wages under arbitration court awards. Yet those who make the laws are not required to have any academic qualification what-Notwithstanding the complexity of the problems which confront them, most of which are now international in their diversity and similarity, no standard of ability is demanded of their chosen representatives by the electors. The amount of education (or lack of it) for representative government is still that which obtained at the time of the Witenagemot and of the beginnings of Parliament by Simon de Montfort in the year 1265.

There are two clichés repeated by those who apologize for our parliamentary system: (a) that we get the parliaments we deserve; and (b) that parliament is a cross-section of the community. I do not agree with either. I do not agree that because a man has wealth, inherited or acquired, has a good platform manner, or organizing ability as a party hack, or has spent years in his union, trade, political or commercial, he is necessarily qualified to govern us. Political systems have grown up, and with them party organizations that are part now of our national life.

There is a responsibility to see that those who seek to represent the community are men of certified ability and character. It is not enough to have an inquiry into alleged irregularities after elections.

A qualifying examination should be demanded of every candidate for parliamentary honours. No candidate should be eligible for party selection or final election by the electors unless he can produce to the authorities or even to the party chiefs a certificate of competency. The minimal requirements for such a certificate would be a knowledge of English, economics, history of Australia, its geography and relation to nearby countries, and a working knowledge of finance. Other subjects could be added according to the development of the profession, for such it The course would be given at the university, where, in addition, a thorough grounding in the essentials of government would be included and a diploma in civics would be issued on the passing of an examination by the candidate for parliamentary honours! That we and others should be compelled by the State to obtain a degree of competence, while those who seek to control us go on in the old haphazard way, is nonsense.

Pari passu with the Pharmaceutical Benefits Act marched the proposals for a national medical service. Time-worn election speeches were resurrected to induce the public to vote for increased powers to the Federal Parliament. Old shibboleths which would meet with applause from those who do not know were put out as new ideas. "Doctors are sons of the rich." "What of the medical expenses of the middle classes?" "Abolish the profit motive in disease." Those who have not yet read Dr. Charles Byrne's book, "Proposals for the Future of Medical Practice" should borrow it from the British Medical Association library—it is now out of print. I wish again to draw the attention of every doctor to its remarkable pages. Here is the answer, taken from the book, to the statement that we have a financial interest in the treatment of illness:

The implications of the above are that there is something sordid about the transaction by which a doctor accepts payment for treating the illness of his patient. These people seem to lose sight of the fact that whether the patient or the State pays him, he is still paid, and the only solution on the highest ethical grounds is for doctor to do all his work in an honorary capacity, which, as Euclid says, is absurd. If the gain stimulus is sordid, so then is the whole structure of our social life, and particularly sordid must be those who gain by provision of the four necessities-food, clothing, shelter and health-from the primary producers, the farmers, graziers, down to those who compete for the sale of these necessities—the grocers, bakers, butchers, clothiers, drapers, architects, builders, not forgetting those who finance these undertakings and the various necessary ancillary services-indeed it is very difficult to find many who would remain above criticism if this charge were pushed to its logical conclusion. Take the case of the barrister who fights to obtain simple justice, even life itself, for his client. Is there anything sordid in his acceptance of a fee for his services? To denounce the "vested interest" of the medical profession in sick-ness seems as logical as to denounce the vested interest of the undertaker in death, of the policeman in crime or of the clergyman in sin.

The popular idea that the university is a place for the sons of the rich is wrong. The opposite is the truth. There come to mind the names of distinguished men in our profession whose grit, ability and determination have raised them to the greatest heights in it. More so, indeed, in numbers, are the members of the general profession—that part of it which does the work in practice which is unostentatious and undramatic. The university new order, as shown in the quota system and its curious methods of matriculation and dismissal from the course after one examination, threatens to deter from entering the very kind of student we desire.

It must be remembered that entrance to the medical course is now competitive—the students are, therefore, selected for their ability. To dismiss them at the age of nineteen or twenty years, at an age when there are few openings in other walks of life, is a cruel procedure. It calls for rectification at the earliest moment.

That there are advantages to the medical profession in a national medical service cannot be denied—regular hours, restricted, as in the case of medical officers in the Repatriation Department, to thirty-six and three-quarter hours per week, a fixed income without the nausea associated with the sending out of accounts, superannuation and holiday leave. Of course, the civil servant has to pay for his superannuation by deductions from his own salary. It is not popular with every government employee. Holidays will be taken when it is convenient to the department—not when the doctor would like to have them, with his family, perhaps, during the school holidays.

As for other reputed advantages, I would advise those contemplating such a government job to contact those in the Government Medical Service in Tasmania, or seek for information at the office of the British Medical Association.

I recently attended a meeting of government medical officers in this State, where salaries only were under consideration. My only comment, guarded, of course, is that I wish that any young medical graduate who contemplates a government job could have heard the remarks of those already in the service. Your Council recently waited on the Minister of Health in relation to the appointment of a permanent health chief under the terms of a new Health Act. It visualized that, with the placing of all the activities in the hands of one medical man, here was a chance to

secure a doctor of outstanding gifts and enthusiasms. We foresaw that the Government would send such a man to England, Russia, United States of America and other countries to learn what was being done in the prevention of disease. To our bewilderment a lay member of the civil service was appointed. This was a rebuff to what represented the hope of our profession. The "small town" point of view seems to be that of a government. There are some States of the Commonwealth that employ whole-time medical officers in country centres whose services are free to the public. I would give to those young men who contemplate applying for those positions, two pieces of advice: firstly, to interview several of those already in the service as to conditions of service; secondly, to see that those conditions do not include the services of the wife, who, too often, becomes a drudge in a loyal attempt to help her husband to keep the flag flying. I know of one practice which provides a free medical service to the local community where the wife has to help wrap up bottles of medicine till 11 p.m. in order that they may catch the mail in the morning.

That the electorate refused to give the Commonwealth Government central control over certain powers now vested in the States is past history, but there is ample evidence to show that the Commonwealth Government is still flirting with the notion that it will attempt to exercise

central control.

Its Parliamentary Joint Committee on Social Security, appointed last year, has just issued its report. To us, who have asked for reforms for a generation, and who have talked of preventive medicine and "positive health", it is pleasing to read of suggested improvements in the methods of improving the national health. Our profession will give its support to every measure which promises to diminish the incidence of disease and increase the welfare of the citizens.

We are told that our requests for more and better hospitals, infirmaries and sanatoria will, at long last, be For the mothers, before and after confinement, there will be nothing but the very best. For the sick, payment for unemployment is promised. The old will get The Government is promising Children are to be inspected and increased pensions. thousands of houses. developed. I seem to remember those promises at elections during the last war and in reports of parliamentary and other special committees and royal commissions. have the great virtue to give hope to those afflicted and to us who feel that, perhaps, we may see something definite some time in the future for the wage earners. Lest some persons are optimistic, let us recall that there has not been a war yet that has not been followed by a financial depression. Should we avert such a depression, I foresee vast improvements in public health and social security-a renascence almost too good to be true: that is, if taxation can be maintained at its present high level.

Of paramount necessity for the public welfare stand housing and nutrition. The subject of adequate housing has been dealt with by my predecessor, Dr. J. A. Cahill, and we have been told that the Government proposes to erect eighteen thousand houses per year. It is to be hoped that much improvement on those war service homes erected after the last war will be effected; those were so bad as to be the subject of a royal commission. In the suburb where I practise, a large, low-lying area was acquired by the State Housing Commission and homes were erected. It is only fair to mention that they are a great improvement on those inhabited previously occupants, but they fall short of the ideal. The allotments are very small and in winter some are still very muddy. The children still play in the streets, which are of concrete. There is no local social or health centre. I regard the area as unsuitable for the future of the citizens. It falls far short of the model type of settlement outlined by Dr. Cahill and existing even now in other parts of the world. Something different and better is indicated for the post-war citizen who has to earn his living in industry.

Perhaps of even greater importance is the subject of nutrition. I attended a lecture recently where a highranking officer declared that the physique of the Australian

soldier had declined. This was especially apparent in those soldiers who had passed their adolescence during depression years. He stated that some quartermasters were able to allow for future development by giving clothes one or two sizes larger, expecting that army diet would add weight to the body and height to the stature of the soldiers. I have seen school children, at midday, invade fried fish shops for potato chips at threepence per newspaperwrapped parcel, and a pickled onion for one penny, while

others purchase a pie for their lunch.

We now know that the Oslo lunch, given regularly, will produce an increase in weight and height in all underfed children. In a great many cases I blame the mothers who receive child endowment, supplied for the very purpose of improving the health of their children. At the same time, I would excuse some of them. Modern industry makes demands on women's labour. Some young women enter matrimony without proper experience of running a home, whilst others find it easier to give the child a few pence for a meal than to make provision for a home-made The Oslo lunch is very simple. One combination consists of two slices of wholemeal bread, butter, a slice of cheese and some lettuce, carrot, piece of fruit, and a half-pint of milk. This meal is minimal indeed. We know how much good it can do. All that is necessary is to translate the theory of it into the practice of making it available to every school child. It should not be beyond the power of the Government, which gives the children a minimum of mental pabulum, to give them at least the minimum of bodily food too. Unless this at least is done, all the schemes of preventive medicine, such as those for better and more hospitals and sanatoria, are fated to be failures.

There is one subject which cries to high heaven for attention by the State Government. We, who practise in areas where the houses are small and hot, know only too well the dangers of bacteria-contaminated milk; and, to make matters worse, ice chests are in most cases absent, or alternatively, there is a scarcity of ice in hot weather.

The report of the Milk Pasteurization Committee is dated August 25, 1944. Over three months have elapsed. How long must we wait for the recommendations to be implemented?

As medical men, we The warm weather is with us. appeal to the Government, which has, within recent years, witnessed at least one epidemic of typhoid fever, to regard the matter as urgent and important. At the British Medical Association Congress held at Adelaide seven years ago, the medical profession defined its attitude toward pasteurization by carrying a resolution in favour of it.

Alongside nutrition is the subject of education, and on that subject one confesses to a feeling of depression. order that the public should be aware of the issues involved in the recent referendum, it was found necessary to invade their homes by means of the spoken and written word to an extraordinary extent. The specious statements made seemed to take it for granted that the general public was poorly educated. Without the propaganda, however, they would have been ignorant about the matters under discussion.

The absence of knowledge of the fundamentals of health may be traced to the same source. It is here that we doctors should derive a lesson from the Governmentcontrolled educational system. Recently, in Victoria, we were treated to an "Education Week" and lectures on education were given by high authorities. One of them stated that apparently the department is governed by what has been called the "1890 state of mind". An expert in another address called it the "1878 state of mind". all agreed that the conditions of the service since those times have improved but slightly. Listening to the addresses. I felt there was a responsibility on every doctor and every citizen to see that those who come after us should not be able to say, with the barbaric example of the Government Medical Service before us this year, that the Government Medical Service of the year 2,000 was governed by the "1944 state of mind".

This topic brings one, naturally, to speak of the Federal Department of Health. Notwithstanding our representa5.

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tions to the Government that proposed medical legislation should be controlled by a corporate body on which the practising profession should be well represented, it has proclaimed that it must be under departmental control. At the same time, at the request of the Government, we conferred with that department, but not with much success. It must be remembered, however, that under the constitution, the Federal Department of Health is concerned solely with the subject of quarantine, and has, except for some research work and the Commonwealth Serum Laboratories, kept within that limit for the past forty-four years. How a government department, with little knowledge of medical work, can control from Canberra the practices of four thousand doctors spread over the whole continent of Australia is beyond comprehension.

It is obvious that the subject of health security is involved in the wider one of social security. That our profession must be included in a better social structure is undoubted. I fear, however, that, if we are to do our best work, we must not be singled out. So complex is our national life that everyone in the community is involved. National health depends as much on him who tills the soil or fashions the machines as on him who makes the bricks and concrete or who designs the clothing as much as on those who make it. In fact, hardly a person is not engaged in producing health.

There must be a new orientation towards national welfare. It would appear that, at present, Russia is the only country that possesses such a mental outlook. In "Red Surgeon", by George Borodin, there occurs this passage:

There is no magic about State control or private enterprise in themselves. Almost everything depends upon the spirit in which they are operated. A State medical service run on familiar bureaucratic lines with the individual doctor's time embarrassed by the filling in of forms and reports would be, to my mind, doomed to failure. On the other hand, where there is a determination to make a socialized system work, then it can obtain the most successful results. Medicine is a science and an art. Its practice cannot be reduced to a formula, for there are as many different kinds of cases as there are individual patients. Of twenty examples of a certain disease, no two will be exactly alike because the individual himself has a personality of his own and his bodily mechanism is exactly similar to no one else's. Failure to realize that is the real danger besetting all schemes for nationalized medicine. The doctor must be left a doctor and not converted into an official, whatever else may happen. He must not be bound by regulation this or instruction that. And the atmosphere must be such that he never feels restricted in the exercise of his individual freedom.

At present, the patient has free choice of doctor. No practical method has been demonstrated in Australia, by any advocate of a national salaried service, whereby that free choice can be maintained. On the other hand, just as rationing and zoning in other commodities have been adopted by the community, so it is safe to prophesy that medical zoning, as in the German and Austrian medical systems, will be adopted here.

Outstanding among all events of the year was the visit of Professor Sir Howard Florey. The development of penicillin should serve as a hormone in appreciating the lesson to be learnt from his visit. At every gathering, lay and medical, he stressed the value of research and with it the teamwork necessary to achieve results. There have been impassioned addresses from the platform and articles in the Press on the subject of research for years past, but nothing much is being done about it. How long more must we wait? We have the men of intellect to devote their lives to medical research. All we need is the money to buy bricks and mortar and apparatus. For years past we doctors have stressed the necessity for research and the governments have cried "poor mouth", waiting for a Rockefeller or a Nuffield to pay for it out of industry. No such person has come forward yet in Australia, so it must perforce be left to governmental action.

During our period of "letting things slide" and of our "up-country village" mentality, we have lost Sir Howard himself, Sir Thomas Dunhill, Isaac Jones, Apperley, Fairley, Eccles, Cameron and, during 1944, Kellaway, Hurst

and Willis. Though peace hath her victories, no less renowned than war, it also has its defeats, and the loss of men like these constitutes a defeat to our young nation which nothing can replace.

The loss from England to Germany of the invention of indigo from coal tar is a comparison which one must make as fitting the situation. In the days when a million of money seemed a lot, the statement that we couldn't afford to pay for research seemed valid, but nowadays that statement simply is not believable. When a nation can blow to pieces lives and property, when thirteen gallons of beer per man, woman and child are consumed yearly, when a motion picture of a dog can draw long queues of pleasure-seekers to four sessions per day at the picture theatres, when tobacco and horse-racing can extract large sums from the purse of the community, there should be ample and to spare to help to prevent and cure disease in a community that spends so freely on goods and services which only tend to destroy mental and physical health.

Our research workers must be free in their environment. Their governing body must consist of those who know the conditions of modern research work. We must improve conditions of modern research work. that control. At present, there is valuable work being done by the National Health and Medical Research Council. It is true that it published the "Outline of a Possible Scheme for a Salaried Medical Service", which, on analysis, proved to be a development of bureaucratic control of a profession whose individualism has maintained for a thousand years its "philosophical freedom", but, other than this blot, it has done well. It will not suffice for the control of research in the period after the war. Its composition is deficient in research workers. It contains persons untrained for the development of research projects. Those who are members of it comprise: (a) chairman, the chairman of the Commonwealth Department of Health; (b) two other medical officers of the Commonwealth Department of Health; (c) the six chief medical officers of the State Health Departments; (d) a representative of the Royal Australasian College of Surgeons; (e) a representative of the Royal Australasian College of Physicians; (f) a representative of the combined Australian university medical schools; (g) two representatives of the public—one the proprietor of a weekly paper, the other a lady prominent in women's organizations; (h) a representative of the Federal Council of the British Medical Association. It will be noted, out of these persons comprising the National Health and Medical Research Council, two only are research workers.

That council should be disbanded and a control set up modelled on the Research Council of Great Britain, which is composed of eleven persons and is a subcommittee of the Privy Council. Of its eleven members, eight are men chosen for their scientific and medical qualifications in the various fields of medical science. Every scientific member must not only be approved before election by the Lord President of the Council, but also have the approval of the President of the Royal Society. Only two members are politicians in the sense that one must be a representative of the House of Lords and one must be a representative of the House of Commons. It happens that the remaining member is a distinguished banker. The secretary is appointed by the Research Council itself. For further details of the complete scheme in Britain, consult the British Medical Journal of October 22, 1938.

In conclusion, there are two important matters to which I would direct attention. The first is the rehabilitation of our own colleagues. The other is our attitude towards refugees.

With reference to the rehabilitation of our own colleagues, the Federal Council is launching a request for a large fund, and I have no doubt that each member of the profession will consider it a personal appeal. We, who have had to stay behind, must feel that it is our duty to make the path of those who return to practice as easy as possible. There are openings in town and country. We have complained of overwork. We can obtain relief from some of it and thus help others while easing the strain on ourselves. The new lodge agreement will be of benefit to

the lodge members only if we reduce our lists to more manageable proportions. This procedure will also help the returned medical officer. We must inquire for the availability of returned specialists and send them work. It is a national duty which we must recognize and take joy in performing. When the call for action comes, and it will come from the office of our Branch of the British Medical Association, let all of us give of our best to those who come back to us.

There remains for me to speak of the refugees. country, if it is to remain white, has problems of immigration which will tax all the energies of those who govern We have been told that Britain itself will need all its artisans to repair the damage there. It is possible that we shall have to comb Europe for surplus population-if we can get it. We must make up our minds, however, on our attitude towards foreigners. At the earliest, we must enfold them into the Australian nation and make them feel they are among friends. Their children must be welcomed among our own children. We must welcome them and their families, not merely grudgingly admit them. Among the immigrants, there will be medical men; we must amend our registration laws so that they may practise freely. The Australian community, as a whole and to its credit, has given refuge to thousands of the persecuted. I am the son of such parents who came to Australia sixty-five years The health of our country and the conditions of medical practice are better than when I entered the profession. I am proud that I contributed to these results and that you have honoured me by electing me to the highest office in the Branch.

The next years are fated to be of great moment to the people of Australia. It is our duty to attempt to give advice on the best curative and preventive measures. When we give that advice, let us insist that we shall be "untrammelled".

When governments interfere with our heritage through the centuries of the preservation of our freedom, let us adhere tenaciously to the basal principles in order to keep our profession intact for those who follow.

THE LOCAL USE OF SULPHONAMIDES AND PENICILLIN.

By Hugh R. G. Poate, Sydney.

In August, 1943, I delivered a post-graduate lecture on the management of established wound infections (The Medical Journal of Australia, March 18, 1944) and referred to the armamentarium that has been developed in the battle against sepsis in wounds. Since then the use of sulphonamides in general has been continued and developed as new varieties are introduced. The place of sulphadiazine has been established, and now sulphamerazine is in vogue. Also in the past nine months an extensive experience with penicillin has been achieved in surgical infections, and we are beginning to find its real value.

Our really heavy artillery in the battle against sepsis consists of the sulphonamides, the acridines and penicillin, but it must be remembered that the earlier the barrage is laid down and the greater its initial intensity, the more successful are we likely to be in our attack and in preventing the enemy from retaining a foothold. But we must have our other technical support, without which our barrage is likely to fail—I refer to adequate and early

Adequate Surgery.

Reiteration is apt to be dreary; but every week one sees examples of the placing of the utmost reliance on chemotherapy and the neglect of the essential principles of surgery, whereas a reversal of these procedures would be to the advantage of all concerned. Every man

experienced in the use of chemotherapeutic agents stresses this same point—that sound surgery is paramount, but has a wonderful ally in the array of antibacterials now available. The best cure of sepsis is its prevention, and this is particularly applicable in compound fractures. As an example of what this means, I wish to quote a recent review of the results attained in compound fractures prior to and since the local use of sulphanilamide at the Minneapolis General Hospital, where it was first introduced. Jensen and Nelson state that prior to the end of 1937, when sulphanilamide was first used locally, the incidence of infection was a little over 25% and the average stay in hospital was ninety-six days, whereas since then only 3·3% of the wounds became infected and the average duration of in-patient treatment was thirty days.

In general terms one may say that, largely as a result of modern chemotherapeutic measures, our dread of acute streptococcal infections is a matter of ancient history; the incidence of anaerobic and gas-gangrene infections has been diminished by early débridement and the control of aerobic infection, the staphylococci are coming under better control, but Bacillus pyocyaneus, Gram-negative bacilli and Bacillus proteus are the most difficult to eradicate. However, as I have previously remarked, a wound will heal rapidly, although it may not be bacteriologically sterile, so long as active pus formation is kept in check and the general resistance of the patient is kept as near 100% as possible.

Classification as Antiseptics.

Albert, in his classification of antiseptics (The Medical Journal of Australia, March 18, 1944), places the sulphonamides in a class of their own according to their mode of action, which was shown by Fildes and Woods in 1940 to be due to their displacement of p-aminobenzoic acid from the vital enzyme system of the organisms. Mould products are placed also in a separate class; their actual mode of action is unknown, and penicillin is as yet the only example which has given worth-while clinical results. The kationic antiseptics include the acridines, and their mode of action is to combine with essential acidic groups in vital enzyme systems.

Mode of Action.

It appears that both sulphonamides and penicillin are bacteriostatic rather than bactericidal, their chief function being to prevent reproduction of organisms and to allow the natural defence mechanism of the human body to play an active role in destruction of the invaders. This explains in part why, in wounds with necrotic tissue, retained foreign bodies and a traumatized or poor blood supply, sepsis is more prone to become established; this in turn further reduces the potential of the natural defensive reactions and induces a state of cachexia which may result in death. It is thus obvious why preventive treatment is much more successful than curative treatment where gross infection is concerned.

Local Use of Sulphonamides.

Once sepsis is established the local use of sulphonamides is disappointing, for the pus contains a relatively enormous amount of p-aminobenzoic acid, one part of which neutralizes or throws out of action 10,000 parts of sulphanilamide. High concentration in the blood stream by the parenteral use of sulphonamides is difficult to maintain for long periods and it is certainly unsafe; moreover, one can never attain on the organismal invasion front by this route such a concentration of the drug as can be achieved by local application.

Provided that the initial application does not exceed ten grammes or at most fifteen grammes in the exceptional case, the amount absorbed does not create a high blood level, except perhaps in the case of extensive burns too liberally dusted. The rate of absorption depends to a great extent on the solubility of the sulphonamide being

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1 Since this was written, reports from England are to hand regarding the use of a 2.2% solution of "Phenoxytol" for Bacillus processes and Bacillus protess infections, and results so far are most encouraging.

¹ A post-graduate lecture, delivered on October 17, 1944.

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used, and the rate of excretion is in much the same proportion. In a wound the concentration of sulphanilamide obtainable is 1,500 milligrammes per 100 cubic centimetres of serous exudate, that of sulphathiazole is 94 milligrammes per cenium, that of sulphapyridine is 50 milligrammes per centum, and that of sulphadiazine is 12 milligrammes per centum. The rate of excretion for the first twenty-four hours is as follows: sulphanilamide, 66%; sulphathiazole, 35%; sulphapyridine, 21%; and sulphadiazine, 24%. After the first twenty-four hours the rate of excretion drops appreciably; in five or six days the first two drugs are completely excreted, but the last two take eight or nine days. The blood concentration of sulphanilamide at twenty-four hours is approximately in milligrammes the dose in grammes placed on the wound surface, and the better the local circulation the quicker the absorption and so the higher the twenty-four hour blood concentration.

In order to ensure adequate elimination it is essential to keep the urinary output up to about 1,500 cubic centimetres per day, otherwise toxic effects may be induced within a period of five to eight days.

Toxic Manifestations.

The wholesale and unrestricted use of the sulphonamides by those not conversant with their correct application has resulted in many tragedies, and it may be as well to review briefly their toxic manifestations, since many of them may follow local application alone or in combination with their parenteral administration.

In view of the chemical constitution of the sulphonamides, it is not surprising to note that many of the toxic symptoms are similar to those seen in certain cases in which thiourea or thiouracil has been exhibited. The only type that I have not yet observed with these lastmentioned drugs is that affecting the kidneys.

Skin effects are many and varied, ranging from morbilliform and maculo-papular dermatitis to extensive bullous eruptions or exfoliative dermatitis.

With local use, if sensitization occurs, it is usually manifest during the second week as an irritating dermatitis which usually becomes eczematous, and constitutional symptoms may develop in proportion to the extent and severity of the reaction. It is worthy of note that parts exposed to sunlight may show a much more intense reaction than parts not so exposed, and for this reason greater care must be exercised in summer than in winter and in tropical zones. Moreover, sensitivity to one member of the sulphonamide group renders the subject sensitive to them all, and when once produced sensitivity lasts for a long period and possibly permanently, as attempts at desensitization have so far been unsuccessful.

In "War Office Bulletin Number 29", November, 1943, the following statement is made:

Where sulphonamides are required for dermatological purposes they should not be applied to the skin or given by mouth for longer than a week. Eczematous subjects are particularly liable to sensitization, and sulphon-amides should never be applied to their skins, even if impetigo develops, and it is unwise to administer them by mouth in such cases.

Cyanosis is frequently seen during parenteral administration and is due to the formation of methæmoglobin. It is stated that the intravenous injection of methylene blue (ten cubic centimetres of a 1% solution) will clear it within a period of fifteen to thirty minutes.

Nausea and vomiting may occur especially with sulphapyridine early in its administration, even though large doses of alkali are given.

Rise of temperature, rigors, joint pains and effusion into

joints develop in some cases. Various nervous and mental effects have been reported-

especially neuritis-and it is inadvisable to use sulphonamides on exposed nerves. Sulphanilamide is not so toxic as other sulphonamides, and sulphathiazole should never be used on cerebral tissue, as it frequently produces

Blood dyscrasias are of common occurrence; they vary from acute hæmolytic anæmia to agranulocytosis, so that in the continuous administration of any sulphonamide regular blood examinations should be made.

Renal complications may be serious. They range from oliguria, albuminuria and hæmaturia to anuria due to deposition of acetylated crystals in the renal tubules. Many fatalities have been reported with all the sulphonamides except sulphanilamide, and apparently sulphathiazole is the worst offender. Usually, however, these troubles occur owing to overdosage, neglect to maintain an adequate urinary output of at least 1,500 cubic centimetres per day and the omission of large doses of alkali, preferably sodium bicarbonate, sufficient to keep the urine alkaline (twelve to eighteen grammes a day). Reference has already been made to the fact that the rate of excretion of the various sulphonamides is in much the same pro-

portion as their solubility.

It is important to be on the watch for all toxic manifestations if a second course of treatment is instituted, as it is during this period they are most prone to occur.

Perrin Long, in a detailed analysis of a large number of cases, states that toxic complications were met with as follows: in 12% of patients treated with sulphanilamide, in 16% treated with sulphapyridine, in 18.5% treated with sulphathiazole, and in 6.5% treated with sulphadiazine.

Sutliff et alii, in a consideration of fatal cases, reported that agranulocytosis occurred in 25%, other blood dyscrasias in 15%, renal dysfunction in 40%, exfoliative dermatitis in 6%, and other conditions in the remaining

Therapeutic Effectiveness.

With added experience in the use of sulphonamides various instances have occurred in which it was apparent that various infections were not controlled as was expected, and it was then found that the particular organisms present had become resistant to the sulphonamide, chiefly among staphylococci and streptococci. It has been reported that in sulphonamide-resistant staphylococci the increase in p-aminobenzoic acid is seventy times as much as in the case of a sensitive organism. It was thought that this resistance in staphylococci was due to some change in the metabolism of the bacteria, leading to a greatly increased manufacture of p-aminobenzoic acid, and that this change was transmitted to subsequent generations of the organism and apparently became a permanent characteristic. The criticism has been made that although this explanation may hold with regard to staphylococci, it does not seem to hold with regard to some other organisms, and especially to Gram-negative organisms.

Hawking points out that the therapeutic effectiveness of a sulphonamide compound does not depend only upon its degree of bacteriostatic activity in vitro, but also upon its rate of absorption and excretion; in addition he states that the bacteriostatic activities of the various sulphonamides are quantitative rather than qualitative, and there is no specific relationship between any one of these compounds and any one organism.

Summary.

The best summary regarding the local use of sulphanilamide is that given by Jensen and Nelson, of Minneapolis (Surgery, Gynecology and Obstetrics, July, 1942). The following points are taken from this summary:

1. Sulphanilamide is more effective when implanted locally than when systemically administered in the prophylaxis of wound infection.

2. Local use of sulphanilamide will not prevent infection in wounds when massive amounts of contaminating organisms are present; but it lessens the severity of the infection.

3. Devitalized tissue will inhibit the activity of locally implanted sulphanilamide.

4. Foreign matter will protect contaminating organisms against sulphanilamide.

5. Local use of sulphanilamide gives protection against infections by inhibiting the growth of aerobic organisms and renders the field less favourable for the growth of anaerobes. It also has some direct action against gas-gangrene organisms.

6. The antibacterial action is directly proportional to the temperature, and wounds should be kept at 37° C. or over for the first twenty-four hours at least.

7. Before the local use of sulphanilamide was introduced, 25% of compound fractures became infected, and in 7.3% gas gangrene developed; since its use the respective figures have been reduced to 3.3% and 1%.

Powder Combinations.

This summary refers only to the use of sulphanilamide, which is the most readily soluble of all the sulphonamides. This property, although very valuable, is not without disadvantages, particularly in the case of deep wounds, which may be liable to anaerobic infections.

which may be liable to anaerobic infections.

Owing to their low solubility the sole use of other sulphonamides has not been satisfactory; but sulphathiazole mixed with sulphanilamide in the proportion of one in three to one in five has been successful in prolonging the local reaction. Sulphanilamide is the only one to be used in serous cavities to prevent irritation.

Combination of an acridine with sulphanilamide is now finding general favour, chiefly with 1% of profiavine (sulphanilamide-proflavine powder); but in our hands "Monacrin" (5-aminoacridine) used in 1% strength ("Monacrin"-sulphanilamide powder) in recent wounds and up to 10% in abscess cavities or grossly infected wounds has achieved remarkable results. The high bactericidal power of "Monacrin" will in most cases clear away sulphonamide-resistant staphylococci and streptococci, and when used as a powder with sulphanilamide "Monacrin" causes no irritation or destruction of tissue such as occurs with the use of any undiluted acridine on tissues. It seems that the two drugs are complementary in action and possibly synergic.

Penicillin.

Sir Howard Florey's initiative in applying the amazing drug penicillin to the human being has resulted in a world-wide interest far exceeding that aroused by the advent of the sulphonamide drugs. Perhaps the reasons for this, apart from the miraculous results obtained, have been its relative scarcity, its high cost of production, and until recent months its restriction to use for battle casualties (and its boosting in the lay Press).

As far as Australia is concerned, when the full story of its production in this country is told, it will be regarded as one of the most outstanding of our achievements in this war. It was undoubtedly a wise precaution to have the manufacture and control of distribution of penicillin strictly limited, for, wonderful drug that it is, it has well-defined limitations.

Penicillin possesses the three great properties of an ideal antiseptic. (i) It has neither local nor systemic toxicity. (ii) Its action is uninfluenced by the presence of blood, pus or other body exudates. (iii) It is active against a wide range of bacteria in extremely high dilutions. Unfortunately it is rapidly excreted, so that, irrespective of the dose given or its method of exhibition, the blood level falls rapidly, and little if any remains at the end of four hours. Consequently intramuscular injection is necessary at intervals of three hours when penicillin is used parenterally. The inconvenience of this procedure, the large amounts to be used and the high cost of treatment have stimulated its local application, and experience has shown that it has a wide range of usefulness.

Properties of Penicillin.

The exact chemical constitution of penicillin is unknown, and its synthesis is not yet possible. It is an organic acid of unusual complexity, and is prepared for clinical use chiefly as the sodium salt which is the one for parenteral use; but the calcium salt, which is not such a refined preparation, will probably be the one for local use. It is a brownish-yellow powder, highly soluble in water, but it deteriorates rapidly in solution. Heat, acids, alkalis, alcohol, metallic salts and most antiseptics in general use destroy it. Many Gram-negative bacteria produce a ferment known as penicillinase which destroys it, and its use in wounds heavily infected with such organisms is disappointing.

Precautions.

With this knowledge in mind certain practical points emerge.

Opened ampoules of penicillin in solution must be kept in a refrigerator, and strict aseptic precautions must be taken against infection with Gram-negative bacteria. Even so, its potency falls rapidly, and solutions should not be kept longer than ten or twelve days. Syringes, needles, tubing et cetera used in its administration must be free from any trace of alcohol or antiseptic.

Triple-distilled water is the safest diluent, as penicillin has a critical pH range, and any trace of acid or alkali will render it inert. If it is used locally, the only antiseptics with which it may be combined are the sulphonamides and the neutral acridines.

Local Use.

The two main methods of administration are (i) in solution and (ii) in powder; but a third method in a cream has been recommended.

In Solution .- In ordinary circumstances, a strength of 250 units per cubic centimetre is all that is necessary; but in the presence of gross infection, and especially if anaerobes are suspected of being present, I prefer higher dilutions even up to 5,000 units per cubic centimetre. In my experience the most resistant of the susceptible organisms are the hæmolytic coagulose-positive staphylococci, and if facilities are available one should have the sensitivity of the organism tested and then use at least twice the strength of penicillin so indicated. Penicillin in solution is generally applied through a fine tube introduced into the wound, and injections of 3.0 to 5.0 cubic centimetres are made every twelve hours for five to seven days or longer if obstinate infections are present. It may be sprayed on open surfaces and the wound covered with a "Vaseline" pad; but usually such lesions are best treated with a powder. In certain resistant infections I have used a neutral acridine, such as "Monacrin" in combination with penicillin, with good effect. Ungar (Nature, August 28, 1943) refers to certain synergistic effects on penicillin. He states that in vitro the bacteriostatic effect on Bacillus subtilis and Staphylococcus aureus is increased by the addition of small amounts of p-aminobenzoic acid, but that this is not so in the case of Streptococcus hamolyticus. He also states that the inhibitory effect of penicillin on staphylococci and streptococci is approximately doubled by the presence of small amounts of sulphapyridine too small to be bacteriostatic in themselves.

In Powder.—The use of sodium or calcium penicillin alone, although effective, is costly, and the powder must be applied evenly so as to colour the whole surface of the wound. It has been found much more convenient to use sulphanilamide powder as a diluent, using from 250 to 5,000 units of penicillin per gramme of sulphanilamide and applying it through a fine blower, such as the Royal Air Force pattern blower.

Creams.—The most satisfactory basis for penicillin cream is lanette wax SX with either soft paraffin or arachis oil and water. Creams are not stable and should be used within seven days. As lanette wax is unprocurable here. I have not used the creams at all.

Surgery with Penicillin.

Florey and Cairns, in their experience in North Africa, stress the fact that penicillin therapy does not obviate the need for adequate surgical treatment. But once the orthodox debridement of a wound has been completed, the next measures are not orthodox, for instead of the wounds being left open, they are sutured loosely after fine tubes have been laid in place for the introduction of penicillin solution. Florey and Cairns advise that stitches be left in place longer than usual—that is, for ten to twelve days—and my experience confirms this advice.

Dressings need be changed only every two or three days, as the tubes can be brought through them for ease of access. In most cases the tubes can be removed and no further injections need be given after five to seven days.

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If a wound is infected and cedematous it can be insuffated with penicillin-sulphanilamide powder every day until the swelling subsides, when secondary suture can be performed over tubes.

All classes of wounds have been treated with remarkable success, and the outstanding results are those attained with compound fractures, most of which after five to seven days can be treated as simple fractures.

Conclusion.

Professor Garrod, in *The British Medical Bulletin* of May, 1943, discussing recent advances in the antiseptic treatment of wounds, made the following remarks which cannot be bettered on this subject.

No one before 1935 could have predicted in his moments of wildest optimism that the control of bacterial infection by chemical means would progress as it has in less than a decade. If he had ventured on such a prophecy, he would certainly have expected local treatment to be perfected first and systemic—the much more difficult task of attacking bacteria in deeper tissues and even the blood stream—to be achieved later. Actually this order has been reversed; systemic sulphonamide treatment had been firmly established for several years before any attempt was made to improve the local treatment of infections. What is quite certain now is that wound infections can be prevented by antiseptics and successfully treated by antiseptics when they do occur. Chronic suppuration in wounds is no longer to be tolerated as a sometime inevitable evil; it calls for active treatment by one of the methods which recent studies have brought to light.

These remarks were made when penicillin was in its early use; but they can be repeated even more positively today.

In conclusion, I wish to emphasize that if chemotherapy fails in the control of sepsis in a wound there can be only three possible reasons, all of which should be capable of being rectified: (a) the presence of dead tissues, which require complete removal, for example, bone, fascia, tendon et cetera; (b) access to the depths of the wound has not been achieved; (c) the organisms present are unsuited to or not affected by the particular substance being used, for example, penicillin for Gram-negative bacilli et cetera.

HUMAN CARTILAGE HETEROGRAFTS IN PLASTIC SURGERY.

By Eric Gutteridge, Victorian Eye and Ear Hospital, Melbourne.

THE subcutaneous tissues of the human body appear to have the same measure of toleration for artificially introduced hyaline cartilage, whether from the cartilage store of the same individual or from another of the same species. It might be expected that the body would react strongly against the placement of cartilage in its substance from some other subject, that hostility would be expressed by the defence mechanism, and that an effort would be made to destroy the alien invader. Nothing of the sort occurs. The subcutaneous tissues of the bridge of the nose or the forehead, upon which these experiments have been made, react to the foreign cartilage in precisely the same manner that they react to the transference of the patient's own septal or rib cartilage. There occur an outpouring of serum and white cells, a mild degree of inflammation with redness of the skin, some discomfort from the subcutaneous tissue swelling forming a small eminence over the graft, a rise of a degree or two in temperature. In a few days the inflammatory reaction subsides, the redness diminishes, the contour of the part appears. The intruder cartilage has been accepted by the tissues. Lydon A. Peer(1) has shown that a connective tissue capsule forms round an autoplastic cartilage graft in fourteen days, and that within this capsule the cartilage continues to live indefinitely with normal staining and structure for periods up to three years, the limit of his experiment. In the three years no diminution occurred in the bulk of the cartilage masses placed in the subcutaneous tissue of the abdomen. My experience is that there is a small subsidence of the graft in the first few months as the connective tissue capsule around the graft contracts and becomes firm. For that reason sufficient cartilage should be placed in the pocket in the tissues to raise the contour slightly above the required elevation. In children and adolescents, however, rib cartilage of autogenous origin does atrophy, and in two cases at the expiry of two years the rib cartilage had been almost completely absorbed and the operation had to be repeated.

The hyaline cartilage used in these experiments came from septal cartilage removed in the course of operations for septal resection, and from rib cartilage. In the septal resection operation the swivel knife removes large sheets, two to four millimetres in thickness and up to forty millimetres in length. The cartilage is flat and has no tendency to curl, the perichondrium has been removed and shaping is easy. The portions of rib cartilage were the emergency strips preserved against a possible failure of the graft beneath the nasal bridge to take, or against suppuration, and stored beneath the abdominal skin. On their removal three months later in the case of an adult no loss of bulk had occurred; in the case of an adolescent this contingency cartilage had diminished greatly, and after two years was useless to replace the wasted graft beneath the bridge.

The cartilage is preserved in acriflavine emulsion (1/1,000) in liquid paraffin. This emulsion preserves the cartilage for at least twenty-one days. No material was used older than fourteen days. The cartilage subsequently became discoloured and black and was discarded.

O'Connor and Pierce⁽³⁾ employed rib cartilage removed from cadavers, preserved in "Merthiolate" (1/1,000), one part, in normal saline solution, four parts. They state that grafts can be used after as long as twelve months.

The jars containing the cartilage immersed in the acriflavine emulsion are refrigerated and retained in the ice chest or refrigerator until required.

A bacteriological examination was made of a number of the strips of cartilage before their use as grafts; a fragment was incubated after inoculation on the usual media for forty-eight hours. One strip showed infection and was discarded. Several strips recently removed (five to seven days old) were inserted without bacteriological tests, and no suppuration ensued. A human culture tube was utilized when part of a cartilage was placed beneath the skin of the nasal bridge of a boxer; two days later, the cartilage proving sterile and no infection occurring, the remainder restored the nasal contour of a school teacher. In view of the fact that all bacteriological tests of cartilage from two to seven days old gave negative results, it was considered safe to dispense with cultural examination, and no infection has resulted.

It was thought possible that reactions might occur with cartilage from persons of dissimilar blood groups. No such responses have occurred.

It is improbable that the spirochæte would survive under the conditions of preservation (acriflavine emulsion and refrigeration). Several Wassermann tests were made of donors; all gave negative results, and this test was abandoned in favour of seven days' treatment of the cartilage by the preservative.

Young men and girls with healthy nasa! mucosa and no evidence of nasal sinusitis were the donors.

Septal cartilage removed at septal resections on healthy adults in the routine operating list, and not required to remedy depressions in the nasal bridge contour, is placed under aseptic conditions in a sterile container, covered with the acriflavine emulsion, labelled and dated, placed in the refrigerator for not less than four days, and discarded if not used after fourteen days. A supply is thus always available.

There are advantages in having a supply of suitable cartilage strips for plastic remodelling. It is not always possible to use the patient's own cartilage to fill in the defects of the nasal bridge; the septal cartilage may be badly fractured and may require to be removed in fragments too small to be suitable, or the septum may have

been resected at a previous operation. The only available source of autogenous cartilage is then a rib cartilage; the removal of this is a considerable operation, leaves a scar, and produces cartilage which, though of ample bulk, tends to curl and twist. The septal cartilage is flat and does not tend to alter its shape. For children adult cartilage is preferable, as the juvenile cartilage atrophies and wastes.

Summary.

Hyaline cartilage of the nasal septum, or rib cartilage, when properly preserved and refrigerated, can be employed as a heterogenous cartilage graft in plastic surgery.

The reaction of the recipient tissue is not greater than that following an autogenous graft.

When no cartilage is available in the nasal septum for the graft, a heteroplastic cartilage is preferable to the removal of rib cartilage.

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Reports of Cases.

THECA-CELL TUMOURS OF THE OVARY.

By H. F. BETTINGER, D. F. LAWSON AND R. WARDEN, Melbourne.

In the decade between 1920 and 1930 Robert Meyer published a series of papers in which he brought order into the group of solid ovarian neoplasms, which then was in a state utter confusion. He segregated those that were not ordinary benign or malignant tumours, likewise those occurring elsewhere in the body, or teratomata, into four different groups: granulosa-cell tumour, arrhenoblastoma, dys-germinoma and Brenner tumour. It speaks for the soundness of his investigations and conclusions that his classification has become generally adopted, and that only two attempts have been made to add another group to his four. One such attempt has been made by W. Schiller in his description of the "mesonephroma". However, this is more a cystic than a solid tumour, and although it seems that Schiller has actually described a so far not segregated entity, it is still doubtful whether the interpretation that the name implies is correct. Another new group was designated by Löffler and Priesel in 1932 as "fibroma thecocellulare xanthomatodes ovarii". Recent investigations seem to indicate, however, that this tumour, the "thecoma" as it is now often shortly called, may rather be a subgroup of the granulosa-cell tumour than a group of its own. As observations of theca-cell tumours are rare (up to 1943 no more than seventy cases had been reported), and as to our knowledge no such case had been recorded in this country, the notes of two recently observed cases and a general discussion of this group of tumours should be of interest.

Clinical Records.

Case I.—Mrs. T., aged fifty-seven years, a patient suffering from mild diabetes controlled by diet alone, reported on June 1, 1941, complaining of post-menopausal hæmorrhage. The menses had ceased at the age of fifty years, and there had been no further hæmorrhage until two months before the first consultation. The hæmorrhage had been irregular for the two months, but was never severe. The patient was in good general health, and examination of the genital organs failed to reveal any significant departure from normal. Dilatation and curettage were performed on June 10, 1941, and a piece of necrotic tissue the size of an almond was This was reported by the pathologist as being an endometrial polypus. The patient remained well and free from vaginal hemorrhage for two months, and then the bleeding recurred. As it was feared that some malignant condition might be present which had been missed at the exploratory operation, panhysterectomy was advised, and was performed on September 12, 1941, one month after the

recurrence of the hæmorrhage. Recovery was uneventful, and the patient is still well, more than two years after

Pathological Examination.—The specimen obtained at operation consists of the uterus, both Fallopian tubes and both ovaries. The uterus is very large for the age of the patient: It is about ten centimetres long and its muscular wall is about three centimetres thick. The cavity is wide, and contains a polypus four centimetres long and 1.5 centimetres in diameter hanging down from the fundus. In the lower part of the uterine cavity there is a sessile, round tumour about two centime cavity timere is a sessile, round tumour about two centimetres in diameter. All the uterine mucosa is grossly hyperplastic; it forms a small polypus in the cervical canal. The muscular wall contains a small, whitish tumour nodule about three-quarters of a centimetre in diameter. The Fallopian tubes are of normal appearance. The ovaries are atrophic, with scarred surfaces. The left ovary is a little larger than the right ovary, and on the cut surface is seen to contain a reddish-yellow tumour about one centimetre in diameter.

On microscopic examination the uterine mucosa is everywhere hyperplastic; it displays a "Swiss cheese" pattern, but in contrast to the usual findings, the glandular shows evidence of epithelium often secretion. pedunculated tumour in the fundus is a polypus composed of such mucosa; the tumour in the lower part of the uterine cavity is a fibromyoma covered with hyperplastic mucosa; the intramural tumour is a small fibromyoma; the cervical tumour is a typical cervical polypus. The tumour in the ovary, although not possessing a capsule, is well defined against the surrounding ovarian tissue; the latter has the usual appearance of a post-menopausal ovary. The tumour itself consists to a large extent of interlacing bundles of rather cellular fibrous tissue. (See Figures I and II.) Slides stained according to Masson's method revealed no muscular elements. However, especially in the periphery of the tumour, the fascicular structure becomes less and less conspicuous, and the cells become shorter and plumper until they have a nearly epithelioid shape. Their cytoplasm contains (in paraffin sections) numerous vacuoles, and scarlet-red staining of frozen sections reveals the vacuoles as fat droplets. (See Figure III.) From these diagnosis "theca-cell tumour" suggested itself. features the

CASE II .- Mrs. F., aged twenty-two years, has always had good general health. Her menses commenced at the age of fifteen years and were soon regular, lasting for six days and occurring at intervals of twenty-eight days. When she was aged nineteen years, the interval between her menstrual periods increased to two months, but they still lasted for the usual six days and had all the usual molimina. When she was aged twenty-one years (ten months before her admission to hospital) the menstrual periods ceased, and there was a gradual onset of subacute attacks of dragging pain in the right lower quadrant of the abdomen. Otherwise she felt quite well.

The patient was admitted to hospital on September 7, 1943. On examination, she was seen to be a healthy young woman of good physique and feminine appearance. The breasts were small but well formed. A very few hairs were growing around the nipples. There were a few hairs on the upper lip, though well within normal limits. pubic hair had female distribution. The voice was feminine. In short, the external appearances were those of a normally sexed, healthy young woman. Clinical examination of the chest revealed no abnormality, nor did palpation of the abdomen. The vulva was essentially normal with a small citioris and somewhat enlarged labia minora. Bimanual examination revealed a small, anteverted, mobile uterus. In the right fornix was a hard, slightly irregular ovoid mass, estimated to be about eight centimetres long and five centi-metres broad. It was mobile, moved separately from the uterus and was moderately tender.

At operation on September 9, 1943, 250 cubic centimetres of straw-coloured serous fluid were found in the abdominal The mass was seen to be arising from the left ovary, which was twisted around behind the uterus and lying in the right fornix, carrying the Fallopian tube with it. There was a short broad pedicle of mesovarium. The right ovary was only about 1.5 centimetres in size and was hard and fibrotic in consistency. There was no sign of ovulatory activity. The uterus and the Fallopian tubes were normal to inspection and palpation. The tumour was delivered and removed without difficulty. The free fluid was aspirated and the abdomen was closed. The appendix, which was normal, was also removed.

Convalescence was uneventful. On September 30, 1943, pelvic examination revealed a small, mobile, anteflexed uterus. The fornices were clear. The pH of the vaginal fluid tful,

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was 4.8. Examination of a vaginal smear revealed prodominantly mature epithelial cells with pyknotic nuclei. Döderlein's bacillus was plentiful. On October 4, 1943, the patient commenced to menstruate with all her usual molimina including breast tension; the period lasted for seven days. On October 23, 1943, she was very well; the pH of the vaginal fluid was between 4.8 and 5.0. Examination of a vaginal smear revealed mature cells predominating, but Döderlein's bacillus was scanty and cocci were numerous. Further menstruation occurred on November 6, 1943, December 8, 1943, and January 7, 1944. Examination of a scraping of the uterine mucosa on December 30, 1943—the twenty-second day of the cycle—revealed a secretory endometrium.

Microscopic Examination.—The tumour had a structure somewhat different from that in Case I. Although there were also many parts where interlacing bundles of connective tissue fibres could be seen, two noticeable deviations were observed. There were large areas where the lesion was extremely cellular; short spindle cells seemed to be closely packed without becoming arranged in a fascicular pattern. The cell density was sometimes so great that the possibility that the tumour was a sarcoma had to be considered. However, the uniformity of cell structures and the absence of polymorphism and mitoses ruled this diagnosis out. In contrast to these extremely cellular areas, others were found where widespread hyalinization of the tumour tissue had occurred. A closer study of the cellular parts then revealed that now and again the short spindle cells gave way to plumper and more epitheliod cells, and scarlet-red staining again demonstrated the presence of fine fat droplets in a large number not only of the short plump cells, but also in cells which had more the appearance of fibrocytes. (See Figure IV.) Thus, the diagnosis of theca-cell tumour was made.

Theca-Cell Tumours in General.

Theca-cell tumours are rare. As has been mentioned already, only about seventy cases have been reported since Löffler's and Priesel's first description in 1932. A large proportion of these cases are not actual observations during this time, but all the larger series—for example, those published by Geist, Dockerty or Henderson—were collected by searching through the biopsy material of past years. The tumour usually occurs after the menopause, and the age of the oldest patient is given as ninety-two years; only a small number of such tumours have been observed in women during the reproductive age.

Clinical Symptomatology.

The local symptoms and signs do not differ from those of any other ovarian neoplasm, and a differential diagnosis cannot be made before operation. As most of the theca-ceil tumours are hormonally active in a manner similar to granulosa-cell tumours, the outstanding clinical features are the same as in the presence of the latter—in menopausal women, irregular, often severe vaginal hemorrhage, and in sexually active women metropathia hemorrhagica or (more rarely) amenorrhæa. Microscopic examination of the uterine mucosa reveals a typical "Swiss cheese" pattern, and should evidence of secretion be found in the glandular cells, a theca-cell tumour is more strongly suggested than a granulosa-cell tumour, although this difference is not always reliable.

Macroscopic Structure.

Tumours have been described as varying in size between small intraovarian nodules and masses of the size of a man's head. They are practically always unilateral. The surface is smooth, adhesions to neighbouring organs are often found, but invasion into them almost never occurs. The tumour is usually firm, but this condition may be modified by the occurrence of degeneration and necrosis. Small and large cysts may be formed by degeneration, in rare cases leading to the appearance of a truly cystic tumour. The cut surface usually has a distinctly yellowish colour.

Microscopic Findings.

The tumour is usually composed of the three different type of cells, which have been related by G. Barzilai to the different stages of the theca interna elements surrounding a Graafian follicle during its life cycle. There are first of all elements indistinguishable from fibrocytes, like those surrounding a maturing follicle. Secondly, one finds plump cells with ample fat droplets in their cytoplasm, which resemble the theca cells immediately prior to the rapture of the follicle. Thirdly are found those cells that resemble

closely the theca lutein cells by their shape and the relation of nucleus and fat-laden cytoplasm.

With regard to the arrangement of these different cells, those of the fibrocyte type are usually arranged in bundles that form an interlacing network. The other two cell groups do not form a definite pattern; they make up areas of varying size, or are scattered widely amongst the other tissue elements. Silver impregnation reveals that all cells are connected and surrounded by a fine argyrophile network that is not demonstrated with ordinary stains. There is great variation of the ratio between the cellular and fibrous portions of the tumours. In some of them fibrous tissue is so predominant that they are classified as fibromata, if no special attention is paid to them. Others are so cellular that the diagnosis of sarcoma is strongly suggested; but usually there is a fair mixture of all elements, most often with a certain preponderance of fibrous structures, so that the diagnosis, once its possibility has received recognition, is not difficult.

Malignancy.

Theca-cell tumours are almost always benign. There is an occasional report in the literature commenting upon the malignant nature of the tumour observed, but such cases are exceptionally rare.

Histogenesis.

The relationship of the tumour under discussion to theca interna structures has been acknowledged by all observers. It is usually thought that theca elements not used in the building-up of Graafian follicles are the matrix for these tumours. Their close relationship to granulosa-cell tumours has, however, raised the question whether it would not be better to look for the mother cells of the tumour in a somewhat earlier stage of embryonic development. As granulosa-cell tumours are no longer thought to be derived from the germinal epithelium, but from the ovarian mesenchyma, it seems justified to see in these two tumours two differently differentiated but closely related derivatives of this tissue.

Comment.

In discussing the facts presented so far, we shall obviously have to deal first with the general characteristics of this group of tumours, and secondly to comment upon some special features of our own cases. As has been pointed out before, the theca-cell tumour shortly after its first description by Löffler and Priesel received general recognition. However, the better the tumour became known, the clearer it became that its differentiation from the granulosa-cell tumour was not always easy. Especially Traut with various collaborators has pointed out that experimental as well as naturally occurring granulosa-cell tumours often contain appreciable amounts of theca cells. He and Marchetti have reported on a large series (54 cases) of this type. From these cases they have classified only one as a pure granulosa-cell tumour and only four as pure theca-cell tumours. The number of tumours with equal representation of both elements was also small, while in most tumours one or the other type of tissue was predominant, although as much as 25% to 30% of the second type of cells were present. These observations caused conceptional difficulties for only so long as it was thought that the matrix for both these tumours was a totally different tissue, the germinal epithelium for the granulosa-cell tumour and the ovarian stroma for the theca-cell tumour. Traut and his collaborators, as well as Geist and others, on account of their studies on experimental granulosa-cell tumours (these can be fairly easily produced in mice), have arrived at the conclusion which Fischel had already drawn years ago on the basis of his embryological studies, that both tissues have a common mother substance, the ovarian mesenchyme. From this point of view it is not difficult to understand that granulosa as well as theca elements are found in the same tumour, and it seems possible that some human granulosa-cell aumours have a similar "life cycle" as Traut's experimental mouse tumours. It is, however, quite another question whether for practical purpose

A few remarks on the histological differential diagnosis of this group seem necessary. While the diagnosis of a granulosa-cell tumour can be missed only when the tumour is so undifferentiated that it looks like a round-cell sarcoma, a theca-cell tumour may not be recognized when it is either rather little or rather fully differentiated. A well-differentiated theca-cell tumour will look so much like a fibroma that its true nature will be recognized only when special attention is focused on this possibility. There can be no doubt that in the past many thecomata have been discarded as ordinary uninteresting fibromata. (It may be mentioned in passing that another of the "special" ovarian tumours has a tendency, although to a much lesser degree,

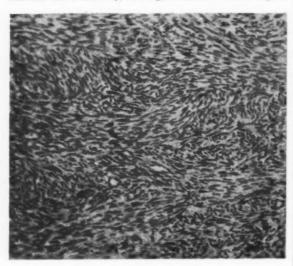
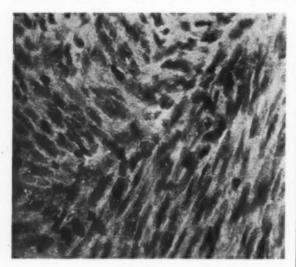


FIGURE I. Fibroma-like structure of theca-cell tumour

to disappear occasionally amongst the fibromata—that is, the Brenner tumour.) While in both these cases important opportunities for study are lost, no great harm is done from the patient's point of view. It is quite different, however, when a less differentiated cellular tumour is mistaken for a



Part of the field of Figure I under higher magnification revealing very fine fat droplets in the cells.

fibrosarcoma or spindle-cell sarcoma. This mistake is rather easily made, and only the observation of a high degree of uniformity of the cell structures, of the absence of anaplasia and especially of the presence of fatty substances in cells and interstitial tissues, prevents such an error and leads to the right diagnosis.

If we turn now to the special features of our own cases, it can be stated that the clinical history of the first was typical. A history of irregular hemorrhage in a woman of post-menopausal age which is not due to a carcinoma should always direct attention towards the possibility of a granulosa-cell or theca-cell tumour. Unusual in this case was the ratio of cause to effect—a small ovarian tumour, not discernible at clinical examination and hidden in the substance of the hardly enlarged ovary, on the one hand;

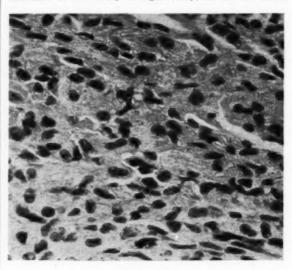


FIGURE III.

Another field of the same tumour showing "epithelioid" cells with fat droplets.

on the other, a grossly hyperplastic uterine mucosa which had formed an uncommonly large and a smaller polypus. Of further great interest is the fact that, although biological or clinical hormone determinations were not possible, it can be assumed with certainty that the tumour secreted not only



From Case II. Short plump spindle cells, with many fat droplets, packed rather closely together.

estrin, but also progesterone. The histological structure of the uterine mucosa is conclusive evidence for this. The second case presents a number of unusual features.

The second case presents a number of unusual features. There is first of all the age of the patient. As has been pointed out before, the thecomata usually occur after the menopause. In only a very few cases have such tumours

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been found in women in the twenties. Further, the majority of theca-cell tumours (and granulosa-cell tumours well) cause through the excessive production of æstrin disorders of the uterine mucosa which result in uterine hæmorrhage of the metropathia hæmorrhagica type. The occurrence of amenorrhea in such patients is less easily understood, and at times may lead away from the right However, hyperæstrinization will stop ovulation, and thereby the normal ovulatory type of menstruation. It will depend on the response of the uterine structures whether irregular uterine hæmorrhage occurs or not. Apparently the pre-pubertal and post-menopausal mucosa responds with hyperplasia and subsequent hæmorrhage, while this is not always so during the reproductive age. Novak speaks of a "polyhormonal" amenorrhæa in such cases. That the amenorrhom was actually caused by the effects of the tumour is proved by the prompt reestablishment of the mestrual cycle after operation. Another interesting feature is the short interval of twenty-five days between operation and the reappearance of menstruation. The observation of one highly atrophic ovary at operation certainly did not suggest the possibility of such a quick recovery. However, there have been occasional reports indicating that an ovary whose activity has been suppressed by hormonal disturbances, can resume its function in an astonishingly short time. It cannot be stated with certainty that this first menstruation was ovulatory in type. It was not possible to perform an endometrial biopsy at this stage, but it is at least certain that three months after operation ovulation had occurred again. As a matter of fact, the clinical history rather strongly suggests that in spite of its atrophic appearance the ovary resumed its activity immediately after operation, and that ovulation was the factor responsible for the reappearance of the menstruation. Finally, this tumour was not diagnosed immediately as a theca-cell tumour. The clinical history and findings did not direct tumour. The clinical history and indings and not direct attention to this group, so the first pathologist who examined the tumour suspected a sarcoma. At the next step, one slide was sent to one of us (H.F.B.). After its examination the diagnosis of sarcoma was changed to that of cellular fibroma, as this slide contained only fibrocytic structures. This, in conjunction with the finding at operation of some ascites, led us to regard the case as belonging to Meigs's Only after a large piece of the tumour had syndrome. become available for the preparation of sections from many different parts, and after the application of special stains, could the correct diagnosis be made. It is therefore evident that an ovarian tumour should be regarded as a fibroma or sarcoma only when examination of many sections from different parts, with differential staining, has failed to reveal any special tissue elements or structures

Summary.

- 1. Two cases of theca-cell tumour, the first in the Australian literature, are reported.
- A general account of theca-cell tumours and their differential diagnosis is given.
- 3. Special features are as follows. In Case I a very small tumour had pronounced effects, and progesterone was produced in relation to cestrin. In Case II the clinical picture had ure all features before and after operation, and the in arriving at the correct diagnosis are pointed

Acknowledgement.

Thanks are due to the Director-General of Medical Services for his permission for one of us (R.W.) to col-laborate in the preparation of this paper.

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Reviews.

"INDUSTRIAL MEDICINE."

During recent years there has been a great increase in the importance of industrial medicine. In Great Britain this has importance of industrial medicine. In Great Britain this has been accelerated by the war; and whereas a few years ago only a handful of the larger industrial firms employed medical officers, now large numbers of factories have found it necessary to have some kind of medical service. The appearance of a book in the "Practitioner Series" entitled "Industrial Medicine" and edited by Sir Humphry Rolleston and Dr. Alan Moncrieff is an indication of the increasing interest in this subject. interest in this subject.1

The editors have assembled an impressive team of experts, each of whom contributes a chapter. The latter, naturally, vary somewhat both in quality and in the method of treatment of the subject. Among the best is the chapter on industrial dermatoses by A. D. K. Peters, which brings out well the fact that industrial dermatitis is but one aspect of contact dermatitis. The criteria set out for the establishment of the industrial nature of dermatosis are those which should be borne in mind by every practitioner before he commits himself to a diagnosis which may mean an injustice to either employer or employee. The preventive measures suggested good; and due weight is given to removal from skin irritants in treatment of an established dermatitis (a point upon which the factory management is often hard to convince).

Ethel Browning, in a valuable chapter on toxic anæmia, gives some indication of the wide range of organic substances used in industry which must be watched as probable causes of anæmia. Her statement, "Certain groups of chemical substances, e.g. the aromatic hydrocarbons, have been extensively studied, and their action on the hæmopoietic system is so well known that any process in which they are used is subject to control by adequate ventilation and periodical examinations of workers", may be true of Great Britain; but anybody who has any acquaintance with the light-hearted way in which benzol is used in this country would hesitate long before applying the words to Australian

industry.

W. C. Gissane, writing on the treatment of the injured workman, unwittingly makes a good case for "rehabilitation by re-employment". There is no doubt about the efficacy of a system by which an injured man returns to a useful job in the factory as soon as he is capable of any work at all. It is a common error, into which Gissane has fallen, to assume that such a system can be applied only in large factories. On the contrary it has often been used very successfully in quite small concerns. It is difficult to escape the conclusion that Gissane has allowed his enthusiasm for the specialized rehabilitation centre to blind him to the possibilities of rehabilitation within the factory.

Those two difficult subjects, "Neuroses in Industry" and "Malingering", are dealt with in competent fashion by E. H. Capel and D. E. Norris respectively. The account of the Stockton-on-Tees "experiment" which appears in the chapter on nutritional problems, though very interesting, is somewhat out of place in a book on industrial medicine. The author brings out the importance of encouraging good dietary habits in industrial workers, by the provision of satisfactory well-balanced meals in the factory; and he "debunks" in masterly fashion the indiscriminate distribution of vitamin pills to workers in industry.

May Smith hardly gives sufficient weight to conditions outside the factory (for example, difficulties of wartime transport) in assessing the causes of fatigue; but otherwise deals with this subject and the kindred one of boredom exceedingly well. The chapter on ventilation and heating by T. Bedford is one of the best in the book. It could have been improved by some longer and more exact explanation of the physiological mechanism of heat loss from the body. As one would expect in a book written primarily for use in England, more attention is paid to heating than to cooling; but the suggestion that in tropical climates dehumidification of the air with little reduction in temperature is to be pre-ferred to excessive lowering of the temperature is an interesting one. Unfortunately, either dehumidification or

^{1 &}quot;Industrial Medicine", edited by Sir Humphry Rolleston, Bt., G.C.V.O., K.C.B., M.D., F.R.C.P., and Alan A. Moncrieff, M.D., F.R.C.P., with an introduction by Air Vice-Marshal Sir David Munro, K.C.B., C.I.E., M.B., Ch.B., F.R.C.S. Ed., LL.D., 1944. London: Eyre and Spottiswoode (Publishers) Limited. 8½" × 5½", pp. 202, with illustrations. Price: 16s. net.

lowering of the air temperature necessitates the use of refrigerating machinery, which is expensive; and industry (in Australia at any rate) is not yet educated to the importance of controlling factory climate in the interests of human efficiency.

Robert Hyde gives an exceedingly one-sided and utterly inadequate picture of welfare services in industry, in which he falls into the common error of presenting welfare services as a kind of benevolent paternalism on the part of the employer. He quite fails to describe the personnel department of the best type of fully enlightened modern firm in which welfare worker, employment officer and medical officer form part of a well-balanced team, all dealing with an aspect of factory management quite as important as any other—the successful utilization of the labour force in the most effective manner.

Those interested in legal provisions to safeguard health in factories will find a good summary of the present position in Great Britain, and will find no cause for complacency if they consider whether most Australian States have yet attained a comparable position. Another important aspect in which Great Britain is ahead of this country is brought out in the chapter on adolescents in industry by Sir Henry Bashford; readers will be impressed by the wisdom of good medical supervision of the health, happiness and efficiency of young workers.

Other chapters in the book give a capable presentation of problems of importance both to the factory medical officer and to the general practitioner in an industrial district. Either will find much to interest him, simply, and on the whole adequately, presented, although one cannot refrain from expressing surprise that so eminent an authority as Vernon should still hold the view that the major route of entry of T.N.T. is by absorption through the skin.

In any book written by many authors, it is inevitable

In any book written by many authors, it is inevitable that the literary style should vary considerably. The outstanding writer is undoubtedly A. J. Amor, who contributes the chapter on chest diseases. One sentence, "Of the dusts which darken men's lives and add a breathless burden to their years, two, and two only, merit full consideration", is a piece of writing unfortunately all too rare in medical textbooks. One could wish that more members of our profession had the gift of using words of such music so appropriately.

THE ELECTROCARDIOGRAM.

It is becoming more evident year by year that electrocardiography, like every other special method of investigation, is chiefly of value to those clinicians who can themselves interpret the findings. Measurement and judgement still walk hand in hand.

Louis H. Sigler's book on this subject is a very comprehensive one.1 The preliminary chapters are conventionel; in fact one could take much of this material for granted in a book that is far too advanced and detailed for the undergraduate or practitioner only wanting a smattering on the subject. The chapter on the normal electrocardiogram is full and helpful, and the variations in the waves observed healthy persons are illustrated by tracings. with axis deviation, the author has made the usual mathe-matical approach, but it might be helpful if tracings were matical approach, but it might be neptul it accepted to collected here showing how purely mechanical or postural changes may alter the electrical axis of the heart. The term "preponderance" is reserved by the author solely for the effect of predominance of one ventricle or the other in function, whether this arises in the sense originally employed by Lewis, by gradual increase in relative muscular bulk of the ventricles, or by reason of a functional deficiency on the part of one chamber. He does not use the term as applied to one or other ventricle in this sense. Cardiology is really in need of some better word than either "strain" or "preponderance". The graphic changes in this state, from whatever cause, are described and pictured in a special chapter. Coronary insufficiency is also given a chapter in which serial tracings with serial episodes in the corresponding case histories show how firmly bound together these complementary pieces of evidence. irregularities take up a good deal of space and are clearly described and illustrated, as are also conduction defects. A very useful chapter is that on "Other Abnormalities in the Electrocardiogram",, in which Sigler is careful to point out

that "a good many cardiac cases yield perfectly normal tracings" and that abnormal tracings may be compatible with good health. The precordial leads are dealt with in some detail and the author presents his own researches into the findings of the six positions now recognized for the chest leads, including the standard IV-CF lead usually employed. Enthusiasts have recently stated in the literature that all these should be used if full information is to be obtained, but Sigler's view is the practical one for the clinician, that the standard IV-CF is usually sufficient and then only confirmatory except in certain cases of difficulty. In these he thinks all the leads should be used. For purposes of research no doubt this is so, but it is also necessary to remember that these graphic changes are only qualitative. A chapter on "Trauma of the Heart" might well stimulate interest in this topic. Nearly always when it is stated that a man has strained or injured his heart this is untrue. But occasionally direct trauma may occur, and, provided zealots do not diagnose cardiac trauma from an electrocardiogram, further study of the subject should be valuable.

This is a reliable and very full exposition of the subject, excellently produced and well and fully illustrated. It is not always easy to read, but the subject does not lend itself to fluidity of style. This book can be recommended to physicians specially interested in electrocardiography.

Potes on Books, Current Journals and Pew Appliances.

THE WAR WORK OF CIVIL AIR LINES.

The story of the war service rendered by Qantas Empire Airways, written by E. Bennett-Bremner, is a striking one. On the outbreak of war it was soon evident how great was the value to Australia of an outstandingly-able staff, built up for twenty years before the war, and specially experienced in maintaining an aviation service over a long and difficult route. There are many fascinating chapters in this record, such as the ferrying of "Catalinas" across the Pacific, the rescues from Malaya, Java and New Guinea often under the most hazardous conditions, the shuttle services run in unarmed aircraft in and out of war zones, and the transporting of troops and supplies. Skilled crews lost their lives, aircraft were destroyed by enemy action, but the work went on. Surely the personnel of this and all other civil airlines carrying out war work should rank with the men of the merchant navy. Those who already have knowledge of what they have done will read this well-written and illustrated account with deep interest. Those who know little of their contribution will be enlightened by a simple story of a fine example of loyalty to a service and tenacity to a cause.

AUSTRALIAN SHORT STORIES.

THE 1943 volume of Australian short stories published under the title "Coast to Coast" should appeal to Australian readers. The selection has been made by Frank Dalby Davison from 550 available stories. The short story is an exceedingly difficult medium of expression and the selector in the foreword discusses the selection of his chosen twenty-four. There is nothing superficial, bright or suddenly surprising about these stories. Medical readers will appreciate the psychological side of many of those chosen and the insight of some of the authors. One story will not hold an attraction for medical readers—it is the only purely medical one and tells of "Sputum Sam", a callous attendant at a tuberculosis hospital, of an equally callous nursing sister and of a pathologist who performs a post-mortem examination through an incision extending from "navel to breast bone". In spite of this story, which is as unnecessary as it is untrue, the volume will be appreciated by medical men and women.

 $^{^1}$ "The Electrocardiogram, its Interpretation and Clinical Application", by Louis H. Sigler, M.D., F.A.C.P.; 1944. New York: Grune and Stratton. $9^{\sigma}\times 6^{\sigma}$, pp. 415, with 203 illustrations. Price: \$7.56.

^{1&}quot;Front-Line Airline: The War Story of Qantas Empire Airways Limited", by E. Bennett-Bremner; 1944. Sydney: Angus and Robertson Limited. 8½" × 5½", pp. 193, with illustrations. Price: 12s. 6d.

^{3 &}quot;Coast to Coast: Australian Stories, 1943", selected by Frank Dalby Davison; 1944. Sydney: Angus and Robertson, Limited. 72" x 42", pp. 253. Price: 7s. 6d.

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The Medical Journal of Australia

SATURDAY, JANUARY 6, 1945.

All articles submitted for publication in this journal should be typed with double or treble spacing. Carbon copies should not be sent. Authors are requested to avoid the use of abbreviations and not to underline either words or phrases.

References to articles and books should be carefully checked. In a reference the following information should be given without abbreviation: Initials of author, surname of author, full title of article, name of journal, volume, full date (month, day and year), number of the first page of the article. If a reference is made to an abstract of a paper, the name of the original journal, together with that of the journal in which the abstract has appeared, should be given with full date in each instance.

Authors who are not accustomed to preparing drawings or photographic prints for reproduction are invited to seek the advice of the Editor.

LOOKING FORWARD.

As each new year breaks most people look back on the twelve months that have gone, maybe with satisfaction, or with a shrug of the shoulders, perhaps with an appraising eye, or even, because of sorrow or suffering. with a desire to forget. During the last few years the outlook of many people has changed. Large numbers of those who used to be light-hearted or care-free have been stricken by bereavement, by sickness consequent on war conditions, by hardships of a hundred different kinds-loss of personal liberty, loss of home, loss of all possessions. They will be numb and perhaps without hope; but while any vestige of hope remains it will spring into life at the new year. The people of Australia have suffered in varying degrees, though they have been spared the major horrors of invasion, blasting of cities and starvation; and the international, national and political portents generally are so overwhelming and so confused that everyone is looking to the future and wondering what is going to happen. Most people, if asked, would say that they expected some change to take place in the social structure. The words "new order" might be used, but they are becoming somewhat of a catch-cry, and, like other catch-cries, may be used without full realization of their significance. We need to take care that we are not like Omar Khayyam, eager to "grasp the sorry scheme of things entire" and "shatter it to bits", only to remould it nearer to our own heart's desire. Hope for the future we should and must have, and the birth of another year makes opportune a reconsideration of values and a restatement of aims, duties and intentions for the future. Our heart's desire, if it conflicts with what in our saner and dispassionate moments we recognize as the course that society should take, may have to be pushed into the background, and we should be prepared with our own hands to do the pushing. On the other hand clarity of vision may allow us to see a worthwhile plan of action that is hidden from other people, and in such a case we must try to show it to them and with missionary zeal press for its acceptance.

When in the present state of world warfare we set out to consider values, with aims, duties and intentions, the Atlantic Charter with its four freedoms comes at once to mind. It may be objected that the Atlantic Charter is for the world, for nations acting in concert with one another, and not for individuals. This point of view would be foolish, and it should not be necessary to assert that no man lives to himself, but that all are members one of another. This has always been true, even before Saint Paul wrote it, but unfortunately it is forgotten. Nothing is clearer than the fact that the day of the individualist has gone-society will not tolerate nowadays the man who uses his fellow man solely as a means to the acquisition of wealth and power. If we think and plan in terms of humanity, our national duty will soon become apparent, and with unerring exactness we shall be able, if we will, to adjust our own attitude to it. A challenge to outline the aims that should be before the nations of the earth would be met by most people with a reply setting out the four freedoms of the Atlantic Charter. From the Atlantic Charter most readers of this journal could without much difficulty draw up a more elaborate statement-there must be few intelligent persons in the community who have not for their own satisfaction drawn up some kind of an international programme. Different aspects of the subject have been discussed in these columns at one time or another during the last few years, and most of the ground has probably been covered; the present purpose will probably best be met by reference to a document known as the "Declaration of Philadelphia", which was adopted in May, 1944, at the twenty-sixth session of the general conference of the International Labour Organization.1 This body, readers should be reminded, was brought into being by the League of Nations; its headquarters were originally situated at Geneva, but at present they are at Montreal, Canada. Lest there be any misunderstanding about this conference and the type of delegate who attends, it may be stated that at the session in May last 41 member countries sent delegates; 28 employers' delegates attended and 30 workers' delegates. The official delegates were accompanied by 131 government advisers, 43 employers' advisers and 54 workers' advisers. In all there were 360 members of delegations. The "Declaration of Philadelphia" consists of five sections. In the first the fundamental principles on which the International Labour Organization is based are reaffirmed:

1. Labour is not a commodity.

2. Freedom of expression and of association are essential to sustained progress.

3. Poverty anywhere constitutes a danger to prosperity

motion of the common welfare.

everywhere. 4. The war against want requires to be carried on with unrelenting vigour within each nation, and by continuous and concerted international effort in which the repre-sentatives of workers and employers, enjoying equal status with those of governments, join with them in free dis-cussion and democratic decision with a view to the pro-

According to this statement, the truth of which none can deny, poverty is a disease. Further, it must be noted that it is to be combated with unrelenting vigour, not only within the nation, but by concerted international effort. This calls above all else for work, coordinated and controlled, good, honest work, not something of the now-yousee-it-now-you-don't variety done in a catch-as-catch-can fashion. In regard to poverty as a disease, readers who

¹ International Labour Review, July, 1944.

have the opportunity should make a point of seeing a cinematograph film entitled "World of Plenty" that was recently screened in Sydney by the New South Wales Department of Public Health.

The second section of the declaration is based on the belief that lasting peace can be established only if it is built on social justice. This section contains five statements, two of which may be regarded as of domestic interest to the International Labour Organization. The other three are as follows:

1. All human beings, irrespective of race, creed or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunity.

2. The attainment of the conditions in which this shall be ossible must constitute the central aim of national and

international policy.

All national and international policies and measures, in particular those of an economic and financial character, should be judged in this light and accepted only in so far as they may be held to promote and not to hinder the achievement of this fundamental objective.

This section is really introductory to the next, which is the one that holds most interest for medical practitioners; in fact its clauses cover the whole range of sociological medicine. The full text of the section is as follows:

The Conference recognises the solemn obligation of the International Labour Organisation to further among the nations of the world programmes which will achieve:

(a) full employment and the raising of standards of living:

(b) the employment of workers in the occupations in which they can have the satisfaction of giving the fullest measure of their skill and attainments and make their greatest contribution to the common well-being;

(c) the provision, as a means to the attainment of this end and under adequate guarantees for all concerned, of facilities for training and the transfer of labour, including migration for employment and settlement;

(d) policies in regard to wages and earnings, hours and other conditions of work calculated to ensure a just share of the fruits of progress to all, and a minimum living wage to

all employed and in need of such protection;
(e) the effective recognition of the right of collective bargaining, the co-operation of management and labour in the continuous improvement of productive efficiency, and the collaboration of workers and employers in the preparation and application of social and economic measures;

the extension of social security measures to provide a basic income to all in need of such protection and compre-

hensive medical care:

(a) adequate protection for the life and health of workers in all occupations:

(h) provision of child welfare and maternity protection;(i) the provision of adequate nutrition, housing and facilities for recreation and culture;

(j) the assurance of equality of educational and vocational

In the fourth section the conference pledges the cooperation of the International Labour Organization with international bodies entrusted with the task of securing the utilization of the world's productive resources and with the promotion of the health, education and well-being of all peoples. In the last section the conference declares that the principles set out in the declaration are fully applicable to all peoples everywhere, and that, while the manner of their application has to be determined with due regard to the stage of social and economic development reached by each people, their progressive application to peoples who are still dependent, as well as to those who have already achieved self-government, is a matter of concern to the whole civilized world.

The world is a sick world. But the sick world can be recovered of its sickness. Hope is the watchword for the new year. During 1945 many unexpected things may happen; but other happenings can be planned and brought to pass, happenings that would find a place in the programme of any world conference called for the betterment of humanity. The road that we shall have to travel will not be easy. The first requisite to success is a will to succeed; the second is a willingness to work, and this applies to every member of every section of the community; the third is a tolerance of viewpoints different from one's own, a readiness to admit that the other fellow is sincere and is not necessarily wrong; the fourth is an ability to give and take-and in that order.

Current Comment.

THE SURGICAL TREATMENT OF PATENT DUCTUS ARTERIOSUS.

IT was only in 1939 that the first successful ligation of a persistently patent ductus arteriosus was performed, and within two years the first success in a case complicated by bacterial infection was recorded. It is with these infected cases that a recent article by Oswald S. Tubbs is concerned, but he gives a good account of the condition, its cause, effects and treatment.1 Nine patients suffering from bacterial endocarditis associated with patent ductus arteriosus were operated on by Tubbs, and six of the patients are well and apparently cured. Tubbs points out that the ductus, connecting the aorta with the pulmonary artery in the fœtus, is 1.5 centimetres long in the full term fœtus and 0.75 centimetre in diameter. Since in none of his cases, even in adults, did the length of the vessel exceed 1.5 centimetres, nor were the ligatures placed more than 0.75 centimetre apart, it is evident that in attempting the closure of so short and relatively wide channel, where retraction will take place on division, ligature alone can be safely performed. The signs of this congenital condition are well known, and need not be referred to here, and the seriousness of the defect is also evident. Not only is there a considerable shunt of arterial blood from the aorta to the pulmonary vessels, imposing a great strain on the heart, as is always seen in cases of large arterio-venous communications, but there is also a grave risk of infection by a Streptococcus viridans in the persisting ductus. In the operations on this series of patients it was first thought that division of the ductus between ligatures might be possible, but this idea was rightly rejected as dangerous. Fortunately simple ligation proved to be effective in a gratifying proportion of successful cases.

Tubbs describes and illustrates the technique used by him following that described by Gross. The incision ran through the second left intercostal space, and with removal of the second and third costal cartilages gave ample exposure, though the actual freeing of the ductus for ligature, particularly on its postero-medial surface, was often difficult and worrying. The anæsthetic used for most of the patients was cyclopropane and oxygen: this was found to favour shallow respiration without causing

anoxemia.

It is interesting that simple ligation has cured so many patients who survived this delicate operation. experience of Tubbs has coincided with that of other surgeons, and in various parts of the world now there are still living quite an appreciable number of patients who have seemingly been cured of this infection, which is almost uniformly fatal when occurring in other sites within the heart itself. Tubbs discusses the rationale of simple ligation as a surgical measure in these cases, and considers that the most reasonable hypothesis is that of Touroff. This is based on the belief, generally held, that bacteria circulating in the blood are rapidly removed or destroyed, and further supposes that the reduction of force in the blood stream, even if the ductus is not completely occluded, causes fragmentation of thrombus, such smaller thrombi being then filtered off by the lungs. It would seem

¹ The British Journal of Surgery, July, 1944.

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reasonable to assume that under these conditions any remaining thrombus would become organized under static conditions. Whatever be the true explanation, it is abundantly proved that infection per se is not a contraindication to operation, and indeed, even the presence of small systemic emboli need not deter the surgeon.

No doubt cases of patent ductus arteriosus are not very common, but infection is a frequent event in the condition, and it is important to recognize the abnormality, preferably before the Streptococcus viridans has colonized in a site that suits it so well. It is only fair, therefore, when the existence of this lesion is suspected to have the diagnosis confirmed, and the question of operation may then be laid before the patient or parents, with its risks and its hopes. Already Australian experience is growing in the surgery of this condition, and the successes must be multiplied in the future.

GREY HAIR.

REPORTS have been made from time to time on the effect of calcium pantothenate and para-aminobenzoic acid on the pigment of hair in various animals including man. In animals whose fur has a market value this might con-ceivably be of importance; in man the greying of hair per se does not seem of much medical interest except in a clinical history, but, of course, its cosmetic significance would at once make the makers and purveyors of restorers Harold Brandaleone, youth prick up their ears. Elizabeth Main and J. Murray Steele have carried out a set of careful experiments with the above-mentioned substances, designed to ascertain what is their effect, if any on grey hair in both the young and old with grey hair. They traverse the literature and remind us that deficiency of a vitamin B filtrate factor less been found to cause greving of the fur in rats and dom, and administration of certain of these factors has been thought to darken the fur once more. Para-aminobenzoic acid was found to be one of the substances involved, but apparently it was not the only one, and later work indicated that calcium pantothenate was also concerned. Favourable results have been reported following the administration of these substances in considerable numbers of human subjects with grey hair, but critics have assailed the accuracy of these observations The present investigation included three groups of people: nineteen elderly people both men and women (over fiftyfive years of age) in hospital with chronic medical maladies such as arthritis, arterial disease et cetera, eight normal young women (aged twenty-nine to thirty-eight years) with greying hair, and six women aged thirty-three to forty-two years with prematurely grey hair. Various doses of one or other or both of the test substances were given, together with brewer's yeast, over periods of six to eight months. No ill effects were observed. The colour of the hair was checked by photographs and the taking of hair samples every month, and two observers recorded their opinions on viewing the patients at least every four weeks. Photographs were not found to be valuable evidence, because slight differences in distance or lighting caused considerable alteration in the apparent colour of the hair. Clippings were found to be of more value, for a distinct difference must be apparent in the hair as a whole before it is evident in the clippings. A yellowish or greenish tint was sometimes noted during the first few months, but it was not always persistent. Some increase in lustre or vigour of hair growth was observed in a few cases. In only two was a definite tendency to restoration of the original colour recorded. In these cases the hair gradually became greyer again after the suspension of the treatment. The authors suggest that there may be something in the idea of other writers that the proportion of paraaminobenzoic acid to calcium pantothenate may be of some significance in bringing about greying of the hair or its reversal, but they agree also that there surely must be other factors involved. There is, of course, a drawback in

the use of para-aminobenzoic acid, for during its administration sulphonamides cannot be given with due effect. Perhaps in passing it is worth while to draw attention to the use of the word "achromotrichia"; those who wish discreetly to describe the greying of hair may thus bring Greek to their aid, though it might appear obscure whether the word means "absence of pigment in the hair" or "absence of pigment at the hair" or "absence of pigmented hair". In any case it cannot be claimed as yet that much success has been gained in attempts to reverse the bleaching effect of time, stress or lack of some accessory substances on the hair of men and women. Long ago Ponce de Leon, so it is said, sought the Fountain of Youth, but in vain, and even in the products of the modern laboratory we have not found the fabled elixir.

A BIOLOGICAL EINSTEIN.

It was only to be expected that when Einstein introduced his revolutionary conceptions of the space-time continuum with its departures from conventional geometry, something similar should be attempted in connexion with the problems of life. Of course, votaries of Einstein, like votaries of wireless, are well represented in mental hospitals; but biology has been waiting for a presentation of life's activities from the standpoint of non-Euclidean postulates and theorems which would have sufficient plausibility and consistency to warrant publication in a scientific journal under sane editorship. This has at last appeared, and in "Problems of Biogeochemistry", by a Russian author, W. I. Vernadsky, member of the Academy of Science of the U.S.S.R., we are offered an exposition of a space occupied by living matter which is different from the space occupied by the inert.1 The intrinsic quality of the space within a living organism is, we are told, distinguished by polar vectors and is marked by symmetries characteristic of Riemann's geometry. There are no straight lines and no plane surfaces in life. Above all there is marked dextrality or sinistrality in life space conditioning the exclusive choice of an optical isomer, dextrorotary or levorotary in polarimetric phraseology. The author lays great stress on this dextrality and sinistrality. He also points out that the range of size of living things is very small compared with the range of size of inanimate matter from the electron to the star and endeavours to fit this in with his scheme. Again time in the realm of the living is not the geometric time of Minkovsky, nor is it the time of mechanics and theoretical physics as with Newton. One misses in this learned discourse the hypothesis that biological time might display inosculating twists and kinks, for there is no greater difference between the living and the non-living than that in the inanimate world all action is determined by the past and with no reference to the future, there is indeed no thought for the morrow, whereas every living organism has its activities conditioned more by an anticipated future than by a registered past. Vernadsky's opinion the Einstein conception of the cosmos is really simple; on the other hand when we come to biology we strike complexities which demand the creation of a new geometry far more involved than those of Lobachevsky and Riemann. No doubt we shall be treated one of these days to an exposition of life's manifestations couched in a new and terrifying mathematical symbolism which only half a dozen human beings can understand or at least declare they understand. The mathematical physicist has told us that the conception of radiant energy as transverse waves in an elastic medium is utterly out of date; the energy is transmitted in discrete quanta and an elastic ether is dismissed as a fairy tale. Nevertheless the practical radio expert remains quite indifferent to these abstruse concepts and continues to give the "listener in" programmes in which wave-lengths are very specifically set out. In similar manner the physician will, we imagine, continue to estimate sugar in blood and urine without consideration of his patient's intracellular non-Euclidean frames of reference.

¹The American Journal of the Medical Sciences, September, 1944.

¹ Transactions of the Connecticut Academy of Arts and Sciences, June, 1944, page 483.

Abstracts from Dedical Literature.

PATHOLOGY.

A Mixed Tumour of the Salivary Gland Type on the Left Hand.

According to Benjamin Highman (Archives of Pathology, June, 1944) a mixed tumour of the salivary gland type occurred on the lateral surface of the left hand of an Indian man, aged eighty years. Ten similar tumours occurring elsewhere than on the head and neck were collected from the literature. All the tumours were on the extremities, six being on the hands. Trauma is suggested as a possible predisposing factor. The view is advanced that these tumours are essentially epithelial in origin, possibly derived from sweat glands, and that the stromal portions, particularly the cartilaginous and myxomatous tissues, are epithelial products.

Late Cerebral Sequelæ of Rheumatic Fever.

WALTER L. BRUETSCH (Archives of Internal Medicine, June, 1944) shows that a late sequel of rheumatic fever is obliterating endarteritis, which usually develops while the patient is otherwise in good health. If the vascular process involves the small meningeal and cortical vessels, gross and microscopic infarctions in the grey matter of the brain will result, producing a variety of mental symptoms. This type of cerebral involvement has been termed "rheumatic brain disease". It represents a chronic infectious process in the same sense as rheumatic Although widespread manifest obliterating heart disease. arteritis seems to occur in only a small number of patients with rheumatic heart disease, the possibility of the development of rheumatic endarteritis in such persons appears to be ever Rheumatic fever in the form present. of this late cerebral sequel has been found to be an important factor in the causation of mental illness. that rheumatic heart disease is several times more frequent among mentally ill patients than amongst the general population emphasizes this contention. Other late cerebral sequelæ of rheumatic fever are rheumatic encephalitis and cerebral embolism, the latter occurring most often during auricular fibrillation suffering from mitral patients

Primary Lymphogranuloma of the Pharynx.

J. LACHMANN (Revue française du Moyen-Orient, May, 1944) reports a case of primary lymphogranuloma (lymphogranulomatome) of the pharynx, manifested in the form of peritonsillar and tonsillar phlegmon. The patient was a healthy Arab, aged thirty-five years, who was admitted to hospital investigation of a peritonsillar phlegmon. Examination revealed much swelling of the soft palate and the left tonsil, in the upper pole of which an ulcerated area covered with pus was found. In the left jugular region a hard ganglion was present; it was not particularly painful, not adherent to the skin, and was the size of a nut. Vincent's bacillus was found and the Wassermann test failed to produce a

As deglutition caused great reaction. pain, the phlegmon was incised, but no pus was found; treatment with infrared rays caused the swelling to decrease gradually in size. In view of presence of the tonsillar and In view of the tonsillar swelling on the left side, a biopsy was made. Lymphogranuloma was found; various types of poly-morphonuclear cells were found in the lymphatic tissue, together with many Sternberg giant cells, in the centre of which were five or six oval globules or one or more irregularly lobulated globules. The cells were thus distinguished from Langhans giant cells the globules of which are found at the periphery. The author comments on the rarity of the condition.

Latent Primary Tuberculosis of the Tonsil.

J. LACHMANN (Revue française du Moyen-Orient, May, 1944) states that he makes it his practice to examine all tonsils that he removes. In the course of such an investigation, he found a primary tuberculous focus in a tonsil removed from a medical man, who had been suffering from recurrent sore throat and joint pains. No abnormality was found in the lungs on clinical and radiological examination. The author points out that latent primary tuberculosis of the lymphatic ring is very rare. In 1908 he reported having found latent tuberculosis of adenoid tissue in 4.3% of cases. Other authors have found latent tuberculosis of the lymphatic ring in 5% to 6% of cases.

Calcification of the Media of the Human Aorta and its Relation to Intimal Arteriosclerosis, Aging and Disease.

HERMAN T. BLUMENTHAL, LANSING AND PAUL A. WHEELER (The American Journal of Pathology, July, 1944) present a report showing the frequency of occurrence of, and the influence of age, sex and disease on, calcification of the media of the human aorta. The study was carried out by means of sections prepared by hæma-The study was carried out by toxylin and eosin staining and by microincineration. The results showed that calcification of the media precedes the formation of intimal plaques; that medial calcification occurs more frequently than do intimal plaques; that intimal plaques do not occur without calcification of the media or other medial change such as syphilitic considerable connective aortitis, or tissue infiltration of the media; and that within a single aorta medial calcification is probably more intense in the immediate vicinity of an intimal plaque than elsewhere. In a few observations it was noted also that calcification of the human aorta was more pronounced in the abdominal than in the thoracic portion. Calcification of the media of the aorta was shown to be primarily a function of age and was not influenced by sex and various chronic infectious diseases. However, examina-tion of specimens from hypertensive persons between the ages of thirty and sixty years revealed considerably more medial calcification than in the "controls". Of 42 cases of syphilitic aortitis, in 33 no medial calcification was found and in nine only slight calcification of the media was present. The relationship between calcification of the media of the human aorta and the loss of elasticity and contractility

with age, as well as the possible relationship of these changes to the formation of intimal phaques, is discussed.

The Effects of Sulphonamide Drugs on the Blood.

ROY R. KRACKE (American Journal of Clinical Pathology, April, 1944) gives a summary of the effects of sulphonamide drugs on the blood. The sulphonamide drugs, including sulphanilamide, sulphapyridine, sulphathiazole and sulpha-diazine, produce similar if not identical effects on the blood. The mechanism of cyanosis from sulphanilamide is The mechanism unknown, but evidence indicates that methemoglobin is partly responsible for the cyanosis, in addition to actual staining of the blood cells by the purple oxidized drug. These drugs are capable of producing serious degrees of acute hæmolytic anæmia, and evidence indicates that all patients suffer from accelerated destruction of red cells. These drugs cause agranulo-cytosis in a few patients; this occurs frequently than does hæmolytic anæmia, but the prognosis is much worse. The sulphonamide drugs also are capable of depressing the level of blood platelets, with resulting hæmorrhagic manifestations. An occasional patient may develop a leuchæmoid reaction, and a large number of leuchæmic patients give a history of previous treatment with sulphonamide drugs. Every patient should have adequate hæmatological studies, in both the early and the late stages, to avoid these complications.

The Renal Circulation in Shock.

HENRY D. LAUSON, STANLEY E. BRADLEY AND ANDRE COURNAND, with the technical assistance of Vera Vessey Andrews VESSEY ANDREWS (The Journal of Clinical Investigation, May, 1944), have investigated the changes in renal vascular dynamics resulting from peripheral circulatory failure by means of the clearance methods in 35 human subjects. The following conclusions may be drawn. The rate of glomerular filtration and effective plasma flow are reduced in practically every case of shock. The reduction is variable, but parallels the degree of shock. but roughly lock. In most cases, the decrease is greater than can be accounted for solely on the basis of reduced arterial pressure, suggesting active vasoconstriction in the renal vessels. The relationship between the renal blood flow and general circulation has been expressed in terms of two calculated values: the renal fraction, which designates the approximate proportion of total blood flow (cardiac out-put) circulating through the kidneys, and the effective renal vascular resistance, which indicates the relation between systemic blood pressure and the renal blood flow. The decrease in renal fraction usually observed reveals that a smaller proportion of the cardiac output flows through the kidneys, indicating that blood is shunted away from the kidneys during shock. increase in renal resistance indicates that renal vasoconstriction mechanism responsible for this re-distribution of the circulation. In general, the lowest clearances associated with lowest blood pH values, but several lines of evidence indicate that acidosis is not the primary cause of decreased renal circulation. contrary, renal ischæmia probably augments the acidosis resulting from wideis dis-

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spread tissue anoxia. Urine flow is uniformly reduced, and in extreme cases total anuria occurs. In general, the degree of oliguria reflects the reduction in rate of glomerular filtration, which in turn is related to the reduction in renal blood flow. In spite of the approximate return to normal of blood pressure and cardiac output, the renal circulation has, in most of the cases which have been adequately studied, failed to improve proportionately during the period of emergency treatment. However, measurements repeated several weeks later revealed a normal filtration rate and effective renal blood flow in all the cases so studied. This investigation, according to the authors, confirms the

MORPHOLOGY.

hypothesis that the urinary findings in

shock, namely, oliguria or anuria, and loss or impairment of concentrating power, are the result of decreased circulation through the kidneys.

Properties of Living Thyreoid Cells.

R. G. WILLIAMS (The American Journal of Anatomy, July, 1944) gives an account of studies on living thyreoid tissues which were undertaken in an attempt to determine why the gland has its distinctive histological structure and what functional significances are attached to the morphological changes which the follicles undergo. The paper contains the results of microdissection and injection experiments on thyreoid follicles in living animals and in excised pieces of the gland, and in addition, further microscopic observations of the grafted gland. Observations tend to indicate that the cells are polarized to secrete towards the lumen of the follicle only, that in the active thyreoid, cells may act as a membrane between the colloid in the follicle on the one side and tissue fluid on the other, without change in colloid volume. No evidence was found of a colloid current through or between the cells of the follicle.

Lymphocyte Content of Bone Marrow.

J. M. Yoffley and J. Parnell (Journal of Anatomy, July, 1944) present a quantitative study of the lymphocytes in rabbit bone marrow, based on a special technique. The costal marrow of the rabbit (average of twelve experiments) had 469,000 nucleated cells per cubic millimetre, of which 61,000 or 12·48% were lymphocytes. Of these 75% were small and 25% were medium-sized lymphocytes. The authors find that the total lymphocyte content of rabbit marrow is of the same order as the number of lymphocytes which daily enter the blood through the thoracic duct.

Thoracic Sympathetic Nerves.

G. Saccomanno (The Journal of Comparative Neurology, December, 1943) finds that the thoracic cardiac nerves are more abundant in man and in the cat than is indicated in previous studies. In man they comprise approximately twice as many fibres which enter the cardiac plexuses as the cervical cardiac nerves. Moreover nerves reach the cardiac plexus from lower levels than is indicated by the work of earlier investigators. The thoracic cardiac nerves are more abun-

dant in the fourth and fifth thoracic segments than at higher levels. Four drawings are given of dissections illustrating variations in the anatomical relationships of the cervical and thoracic sympathetic cardiac nerves of the cat, and one is given of a dissection of a human cadaver illustrating the nerves which enter the cardiac plexus of the right side. Several tables of nerve fibre counts are given for the cat. The thoracic sympathetic nerve fibres in the cat number approximately 2,800 on either side, some of which are myelinated and others unmyelinated, of which about 730 are visceral afferent, the remaining sympathetic. Of the 730 visceral afferent fibres, 200 are myelinated and the rest are unmyelinated.

The Pyramidal Tract.

A. M. Lassek (The Journal of Comparative Neurology, December, 1943) studied the motor cortex and pyramids of the spider monkey, (i) to compare the anatomical facts with the known results of electrical stimulation of the cortex, (ii) to contrast the anatomy with the skilled, digital movements in the upper extremity, and (iii) to compare the number of large motor cells of area 4 with the number of pyramidal ract fibres in the pyramid. He counted 10,165 large cells in area 4, and about 505,000 axones in each pyramid just above the decussation, so that in the spider monkey, as in man and the macaque monkey, there is a great disparity between the number of large cells in the motor cortex and the number of axones in the pyramidal tract. Also the pyramidal tract of the spider monkey, like that of the macaque, is primarily composed of minute axones. There is a small percentage of medium-sized axones, but there are no large ones, such as are present in man or dog. As the number of axones in the pyramidal tracts of the macaque and the spider monkey is about the same, it appears that no direct correlation can be made between the number of fibres and the lack of skilled digital movement in the latter. Considerable differences exist in the distribution of the large motor cells between the spider monkey and the macaque; in the former they are more numerous in the upper portion of the cortex. The development of the long, prehensile tail of the spider monkey and its extensive representation in the upper portion of the cortex may be responsible for this.

Nerves and Nerve-Endings in the Knee Joint.

E. Gardner (The Journal of Comparative Neurology, February, 1944), using the silver and methylene blue techniques, investigated the distribution and termination of nerves in the knee joint of the cat. Branches of the femoral nerve form extensive plexuses in the medial and lateral capsules, from which axones are redistributed to the infrapatellar fat pad and to the femoral, tibial and patellar epiphyses. Branches of the common peroneal nerve supply the lateral capsule, the superior tibio-fibular joint and the capsule near the tibial tuberosity. Branches of the tibial nerve enter the posterior capsule and accompany blood vessels to the femoral and tibial epiphyses, the medial and lateral capsules, the periosteum and perichondrium of femur and tibia, and the superior tibio-fibular joint. Non-

myelinated axones which end in relation with the smooth muscle of the articular blood vessels are undoubtedly vasomotor in function. Free nervendings in the adventitia of the vessels and in the capsule and associated areas are thought to be concerned with the reception of pain. The myelinated axones which supply blood vessels are also thought to be sensory in function. Ruffini endings and their "accessory fibers", which are located mainly in the posterior capsule, are quite probably associated with the reception of proprioceptive impulses.

Development of Osseous Skeleton.

C. R. Noback (The Anatomical Record, January, 1944) gives a descrip-tion of the development of the prenatal human skeleton based on series of orthoscopic drawings held to some constant dimension. Such a method has not been published previously. Aspects of the developmental anatomy of the pre-natal and circum-natal macroscopic osseous skeleton are out-lined and illustrated in seven stages. Some special phases of the normal prenatal developmental anatomy of the mandible, frontal bone, parietal bone, tympanic annulus, occipital bone, scapula, clavicle, ribs, centra, neural arches and ilium are briefly discussed. arches and illum are briefly discussed. On the basis of the relation of the location of an ossification centre to the geometric centre of the bone or the part of the bone that the centre forms, there are two types of ossification centres—namely, (1) centric centres and (ii) eccentric centres. A centric centre is an ossification centre which appears approximately in the geometric centre of the bone or in the part of the centre of the bone or in the part of the bone that the centre forms. An eccentric centre is an ossification centre which appears in a locus removed from the geometric centre of the bone or from the geometric centre of the bone or from the part of the bone that the centre forms. Each pre-natal ossification centre is classified into one of these two types. The asymmetrical time of appearance of the bilateral ossification centres and the relation of the order of appearance of the ossification centre during the pre-natal and circum-natal periods to the "sequence" of cranio-caudal development are briefly discussed. Although the bilateral centres are occasionally asymmetrical, their appearance is essentially symmetrical. The sequence of the appearance of the ossification centres during pre-natal life shows varying degress of conformity and non-conformity to the "sequence" of cranio-caudal development. A short criticism of the literature concerning the time of the appearance of the pre-natal ossification centres is presented.

Inguinal Canal in the Fœtus and Newborn.

H. Curl and R. G. Tromly (Journal of Anatomy, July, 1944) state that there is a definite inguinal canal in the male fætus before the testis passes through the abdominal wall. The testis at this time is not large enough to disturb the relationship of the inguinal rings. In fætuses of 180 millimetres (crownrump) length or less the inguinal canal lies parallel to the rectus abdominis muscle rather than to the inguinal ligament. The inguinal canal in the female is just as definite and of approximately the same length as in the male fætus of the same age.

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ANNUAL MEETING.

The annual meeting of the Victorian Branch of the British Medical Association and of the Medical Society of Victoria was held at the Medical Society Hall, Albert Street, East Melbourne, on December 6, 1944, Dr. D. Rosesy, the President, in the chair.

ELECTION OF OFFICE-BEABERS AND MEMBERS OF COUNCIL.

The Medical Secretary announced that the Council had elected the following office-bearers:

President: Dr. John Dale.

Senior Vice-President: Professor P. MacCallum. Junior Vice-President: Brigadier F. K. Norris.

Chairman of Council: Dr. H. C. Colville. Honorary Treasurer: Dr. C. H. Mollison. Honorary Secretary: Dr. Roy F. Watson. Honorary Librarian: Dr. Guy Springthorpe.

The Medical Secretary announced that the following had been elected members of the Council by the general body of members: Dr. A. E. Brown, Dr. C. Byrne, Dr. H. C. Colville, Dr. D. Dale, Dr. D. M. Embelton, Dr. J. H. Govinie, Dr. John S. Green, Dr. L. W. Johnston, Dr. E. I. Littlejohn, Professor P. MacCallum, Brigadier F. K. Norris, Dr. K. Smith, Dr. R. Southby, Dr. D. Thomas.

The Medical Secretary announced that the following had been elected by the subdivisions: Dr. H. Boyd Graham, Dr. Guy Springthorpe, Dr. H. Searby, Dr. F. E. McAree, Dr. M. H. Box, Dr. L. A. Neal, Dr. Roy Watson, Dr. J. A. Cahill, Dr. B. D. Fethers, Dr. F. J. Bonnin, Dr. G. V. Davies, Dr. R. Knox, Dr. F. W. Grutzner, Dr. W. Sloss, Dr. P. Goodman, Dr. A. B. Hewitt, Dr. D. Carter, Dr. G. R. Weigall.

The Medical Secretary annnounced that the ex-officion members of the Council were: Dr. F. L. Davies, Dr. C. H. Mollison, Dr. J. Newman Morris, Dr. D. Roseby (Trustees of the Medical Society of Victoria), Dr. J. P. Major (Director, Australasian Medical Publishing Company, Limited).

The representative of the Victorian Medical Women's Society was Dr. Elizabeth McComas.

Dr. W. G. D. Upjohn and Dr. E. M. Ettelson were coopted to the Council.

ANNUAL REPORT OF THE COUNCIL.

The annual report of the Council which had been circulated among members was received and adopted. The report is as

The Council of the Branch and the committee of the society present the sixty-fifth annual report of the Branch and the eighty-ninth of the society.

In accord with the wishes of the Commonwealth Government for the observance of economy and to conserve paper, this report, compared with those of former years, has been abbreviated in the same way as that of last year, although the work of the subcommittees, sections and subdivisions has continued during the year.

At the annual meeting held last December, the following members of the Council and of the committee were elected: Dr. Arthur Brown, Dr. Charles Byrne, Dr. H. C. Colville, Dr. John Dale, Dr. D. M. Embelton, Dr. John H. Gowland, Dr. John S. Green, Dr. Leonard W. Johnston, Dr. Euan I. Littlejohn, Professor P. MacCallum, Dr. F. Kingsley Norris, Dr. Kenneth Smith, Dr. Robert Southby and Dr. Douglas

The following were elected to represent the subdivisions: Dr. F. J. Bonnin, Dr. M. H. Box, Dr. J. A. Cahill, Dr. D. Carter, Dr. G. V. Davies, Dr. E. M. Ettelson, Dr. B. D. Fethers, Dr. H. Boyd Graham, Dr. F. W. Grutzner, Dr. W. E. Fetners, Dr. H. Boyd Granam, Dr. F. W. Grutzner, Dr. W. E. Harrison, Dr. R. Knox, Dr. F. E. McAree, Dr. L. A. Neal, Dr. J. H. Paterson, Dr. Henry Searby, Dr. W. Sloss, Dr. Guy Springthorpe and Dr. Roy Watson. During the year Dr. Paterson, who represented the Gippsland Subdivision, resigned, and Dr. A. B. Hewitt was appointed in his place. On the release from the army of Dr. G. Raleigh Weigall, Dr. Ettelson, resigned, and Dr. Weigell, was annotated the correct Ettelson resigned, and Dr. Weigall was appointed the representative of the Southern Suburban Subdivision. Under Rule 9 of the Branch, Council elected Dr. Eileen FitzGerald, nominated by the Victorian Medical Women's

The following are ex-officio members: the trustees of the Medical Society of Victoria, Dr. F. L. Davies, Dr. C. H. Mollison, Dr. J. Newman Morris and Dr. D. Roseby; and the representative of the Australasian Medical Publishing Company, Limited, Dr. J. P. Major.

-At its first meeting the Council coopted Dr. W. D. G. Upjohn. Dr. Ettelson was coopted a member in September after his retirement as representative of the Southern Suburban Subdivision in favour of Dr. Weigall.

The Council elected the following office-bearers: President, Dr. D. Roseby; Vice-Presidents, Dr. John Dale and Professor P. MacCallum; Chairman of Council, Dr. H. C. Colville; Honorary Secretary, Dr. Roy Watson; Honorary Treasurer, Dr. C. H. Mollison; Honorary Librarian, Dr. Guy Springthorpe.

The executive consisted of the president, the immediate past president and other office-bearers.

Attendances at Council Meetings.

Eleven ordinary meetings and eight special meetings of the Council were held. The following shows the attendances:

Dr. D. Roseby	18	Dr. John H. Gowland	11
Dr. Roy Watson	18	Dr. C. H. Mollison	11
Dr. J. A. Cahill	17	Dr. Eileen FitzGerald	9
Dr. H. C. Colville	17	Dr. J. Newman Morris	9
Dr. H. Boyd Graham	17	Dr. Euan I. Littlejohn	8
Dr. E. M. Ettelson	16	Dr. W. G. D. Upjohn	7
Dr. Robert Southby	16	Dr. W. E. Harrison	6
Dr. John Dale	15	¹ Dr. J. H. Paterson	6
Dr. B. D. Fethers	15	Dr. G. V. Davies	4
Dr. L. A. Neal	15	Dr. J. P. Major	4
Dr. M. H. Box	14	³ Dr. A. B. Hewitt	4
Dr. Charles Byrne	14	Dr. W. Sloss	3
Dr. L. W. Johnston	14	Dr. G. R. Weigall	2
Dr. Kenneth Smith	14	Dr. Arthur Brown	1
Dr. F. L. Davies	13	Dr. D. J. Thomas	
Dr. D. M. Embelton	13	³ Dr. F. Kingsley Norris	1
Dr. John S. Green	13	Dr. F. J. Bonnin	0
Dr. F. McAree	13	Dr. F. W. Grutzner	0
Dr. D. A. Carter	12	Dr. R. B. Knox	0
Professor P. MacCallum	12	Dr. Henry Searby	0
Dr. Guy Springthorpe	12		

The highest attendance at any one meeting was 26 and the average attendance was 22.

Appointment of Subcommittees.

The following subcommittees were appointed by the Council at the beginning of the year, the first-named acting as convener of the subcommittee:

Ethics.-Dr. F. L. Davies, Dr. Graham, Dr. Green, Dr. Morris, Dr. Smith and the executive.

Finance, House and Library .- Dr. Mollison, Dr. Smith and Dr. Springthorpe.

Legislative.-Dr. Roseby, Dr. Colville, Dr. Dale, Dr. F. L. Davies, Dr. Gowland, Dr. Green, Dr. Littlejohn and Dr. Watson.

Organization .- Dr. Roseby, Dr. Cahill, Dr. Colville, Dr. Box, Dr. Brown, Dr. Dale, Dr. Fethers, Dr. FitzGerald, Dr. Gowland, Dr. Graham, Dr. Green, Dr. Ettelson, Dr. Johnston, Dr. Littlejohn, Dr. McAree, Dr. Neal, Dr. Searby, Dr. Smith, Dr. Southby, Dr. Springthorpe, Dr. Watson and representatives of the country subdivisions.

Science.-Professor MacCallum, Dr. Graham, Dr. Johnston, Dr. McAree, Dr. Searby, Dr. Springthorpe and Dr. Watson. Hospital.—Dr. Graham, Dr. Colville, Dr. Embelton, Dr. Ettelson, Dr. Neal, Dr. Smith, Dr. Southby and Dr. Watson.

Correspondence.-Dr. Colville and Dr. Watson. Workers' Compensation .- Dr. Byrne, Dr. Colville, Dr.

Gowland, Dr. Roseby and Dr. Searby. During the year the following subcommittees were

appointed: Publicity .- Dr. Roseby, Dr. Springthorpe, Dr. Ettelson and

the Medical Secretary. Rehabilitation .- Dr. Johnston, Dr. Graham, Professor MacCallum, Dr. Smith, Dr. Thomas and Dr. Weigall.

Membership Roll.

The number of members on the roll at October 31, 1944. was 1,720, which is 128 more than last year. One hundred

¹ Resigned during the year.
² Appointed during the year.
³ Australian Imperial Force.

and fifty-five names were added (134 by election, five members were reinstated by payment of arrears, and sixteen members were transferred from other States) and 27 names were removed (fourteen by death, five by resignation, seven by transfer to other States, and one member allowed his subscription to fall into arrears). Honorary medical members now number thirty-one. Honorary student associates number four. Provisional members number twelve.

number four. Provisional members number twelve.

The death of the following members and former members is recorded with regret: Dr. R. J. Altchison, Dr. James Booth, Dr. R. W. Chambers, Dr. Leslie Davies, Dr. B. P. Donald, Dr. J. B. Donaldson, Dr. Gilbert Gocher, Dr. H. St.C. Fordyce, Dr. E. H. Fyffe, Dr. E. Frank Lind, Dr. E. Alan Mackay, Dr. J. F. Mackeddie, Sir Henry C. Maudsley, Dr. Ramsay Mailer, Dr. J. C. Morton, Dr. J. H. Nattrass, Dr. V. M. O'Grady, Dr. K. A. Piper, Dr. Helen Shaw, Dr. J. G. Shelton, Dr. R. E. Shuter, Dr. J. F. Ruddall, Dr. J. H. Rutter, Dr. Newport B. White and Dr. J. W. Wilkinson.

Roll of Honour.

Died on Service.

Died on Service.

Major Eric Bailhache, Flight-Lieutenant W. R. Brodrick, Major J. F. Chambers, Lieutenant-Colonel Eric Cooper, Captain W. G. Cuscaden, Captain J. F. Davies, Captain C. S. Donald, Surgeon Lieutenant J. M. Gaskell, Captain J. C. R. Joyce, Captain G. L. Lindon, Flight-Lieutenant F. H. Lord, Major H. F. G. McDonald, Major N. V. McKenna, Surgeon Lieutenant D. N. McKenzie, Lieutenant-Colonel C. P. Manson, Captain A. D. Mawson, Captain J. F. Park, Captain D. J. Shale, Major Z. Schwartz, Flight-Lieutenant Stuart Thomson, Captain S. I. Weir.

Missing on Service.

Surgeon Commander J. R. Hasker, Surgeon Lieutenant-Commander F. H. Genge, Surgeon Lieutenant W. J. McLaren-Robinson, Surgeon Lieutenant-Commander E. M.

Prisoners of War.

A list of prisoners of war was published in the 1942 annual report and remains unchanged.

Honours Conferred by His Majesty the King for Services Rendered during the Present War.

C.B.E.—Brigadier H. C. Disher, Brigadier H. G. Furnell, D.S.O., Brigadier W. Halles, D.S.O., Colonel J. G. Hayden, Brigadier W. W. S. Johnstone, D.S.O., M.C., Brigadier F. K. Norris, D.S.O., Colonel N. L. Speirs.

D.S.O .- Lieutenant-Colonel K. J. J. Dorney, Colonel W. W. Lempriere, Major F. Douglas Stephens.

O.B.E.—Colonel C. W. B. Littlejohn, M.C., Lieutenant-Colonel W. Refshauge, Wing Commander S. F. Reid, Lieutenant-Colonel R. Smibert, Lieutenant-Colonel J. Glyn

M.B.E.—Flight Lieutenant J. Grantley Shelton, Lieutenant-Colonel J. O. Smith, Lieutenant-Colonel Ian Wood.

D.S.C.-Surgeon Lieutenant-Commander E. M. Tymms. M.C.-Captain J. F. Connell, Captain V. E. Sampson.

Meetings of the Branch.

As the lecture room at the Medical Society Hall was occupied by the book and sewing sections of the Red Cross Society, Branch meetings were held at the Royal Australasian College of Surgeons, and the Branch Council expresses its gratitude to the Council of the College for its generosity in making the lecture hall available.

The following meetings were held:

January.—Special meeting addressed by Dr. John Hunter, General Secretary of the Federal Council.

February.-"The Northern Territory", Dr. Hubert Jacobs. March.—A programme of films lent by the Royal Australian Air Force Visual Education Branch, the Department of Information and John Wyeth and Brother: "Peptic Ulcer", "Scables", "Neuropsychiatry", "A Subject for Discussion".

April.—A symposium on mental testing, at which the speakers were Major J. R. Williams, Major J. V. Ashburner, Dr. E. MacLean and Captain D. W. McElwain. A special meeting was also held in April to discuss the Pharmaceutical Benefits Act.

May.—"The Significance of the Rh Factor", Major Lucy Bryce and Dr. Vera Krieger.

June.—The sixth Triennial Syme Memorial Lecture: "The Control of Medical Equipment in a Nation at War", Sir Alan Newton.

July.—A discussion on penicillin at which the opening speakers were Captainn V. Bazeley, Major R. Officer and Colonel C. W. B. Littlejohn.

August .- "Tropical Diseases in Returned Soldiers", Colonel H. Turnbull.

September.—"Medical Education and Research: Impressions of an American Visit", Dr. F. M. Burnet. A special meeting was also held in September at the Public Lecture Theatre, Arts Building, University of Melbourne, which was addressed by Sir Howard Florey, the subject of his address being "Penicillin".

October .- The eleventh Sir Richard Stawell Oration: "Ten Years", Dr. S. A. Smith.

November .- "A Medical Psychologist in Japan", Dr. C. I.

Retirement of Professor R. Marshall Allan.

On the retirement of Professor Allan from the Council, the following minute was recorded:

The Council of the Victorian Branch of the British The Council of the Victorian Branch of the British Medical Association records with regret the resignation from membership of the Council of Professor R. Marshall Allan. Professor Allan joined the Council in 1931, was President of the Branch in 1937, and its Honorary Secretary in 1942 and 1943, and both as a member of Council and as an office-bearer he rendered great service to the Association. Council congratulates Professor Allan on his appointment as Dean of the Faculty of Medicine, and extends to him its good wishes for the future.

Death of Dr. G. C. Anderson.

A cable of sympathy was forwarded to the British Medical Association, London, on the death of Dr. G. C. Anderson, its secretary, who had done so much for the medical pro-fession throughout the British Empire.

Bequest by the Late Dr. R. H. Fetherston.

Under his will Dr. R. H. Fetherston bequeathed to the trustees of the Medical Society of Victoria his debenture holdings in the Australasian Medical Publishing Company, Limited, with the direction that the interest therefrom be used for establishing a triennial lecture on a subject relating to maternal welfare. The first lecture will be delivered in

Sir Howard Florey's Visit.

At a special meeting of the Branch held on September 20, members had the honour and pleasure of hearing an address on "Penicillin" by Professor Sir Howard Florey.

Meeting of Convocation.

In view of the possibility of changes in medical practice arising from action by the Commonwealth Government and the need to more clearly define the policy of the Branch and bring it up to date, Council decided to convene Branch convocation on January 28. The decisions arrived at were later adopted by Council and are now the policy of the Branch.

Business of Council.

Throughout the year constant attention has been devoted by the Council and the Organization Subcommittee, which acts as the Medical Planning Subcommittee of the Council, to the proposals which have been advanced by the Commonwealth Government in relation to the future of medical practice and to the Pharmaceutical Benefits Act. In this connexion eight special Council meetings were held, as it was impossible to deal with the work involved at the ordinary monthly meetings. Decisions on these matters have been conveyed to the Federal Council and members of the Branch have been kept informed of developments by newsletters.

During the year the Association of Friendly Societies of Victoria agreed, without conditions, to an increase in the ledge contistion rate to twenty went years ability members which is a single contestion of the conditions of the contestion of the contestion rate to twenty went were the contestion of the contestion of the contestion rate to twenty went were the contestion of the contestion

lodge capitation rate to twenty-six shilling metropolitan and thirty-two shillings country. Subsequently a joint deputation waited upon the Deputy Prices Commissioner, and advice has just been received that the proposed increase is approved.

Following a request from a member employed as a ship's surgeon, representations for a substantial increase in his salary were accepted by the shipping company employing

Representatives of the Council gave evidence to the State Development Committee on the question of future develop-ment and control of hospitals, and to the Parliamentary Standing Committee on Broadcasting regarding broadcast talks on venereal diseases and sex relations.

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Two new subcommittees were formed during the year—a Publicity Subcommittee to formulate ways and means by which the views of the medical profession might be promulgated to the public, and a Rehabilitation Subcommittee to plan and aid the reestablishment in civil practice of medical officers discharged from the services.

In order to obtain first-hand information of the social security legislation in New Zealand, Dr. Dickson was requested by Council to make a visit to that country. The expense of the visit has been met by the Organization Fund, which was recently established by an increase in the membership subscriptions.

Federal Council.

The Federal Council met in January in Melbourne, in May in Sydney, and in September in Melbourne. Full reports of the proceedings appear in The Medical Journal of Australia of March 11, 1944, July 15, 1944, and October 28, 1944.

The Branch Council entertained members of the Federal Council at luncheon during the meetings held in Melbourne. Two conferences between representatives of the Federal

Council and the Commonwealth Government have been held in recent months, and reference to those conferences will be found in the reports of the proceedings of the Federal Council, published in The Medical Journal of Australia.

During the year the Federal Council capitation fee was increased and the Organization Fund is, at least temporarily, defraying this expenditure, the sum of £556 having already been paid from the fund in this respect.

The Library of the Medical Society of Victoria.

The library has been in constant use throughout the year, despite the absence of many members on service.

A large number of new books has been added, some having been purchased, while others have been donated, and permission is at present being sought from the Department of War Organization of Industry for the construction of additional shelves.

Members of the Library Advisory Subcommittee are thanked for their valuable assistance in the selection of new

Presentations to the library during the year have been made by the following, to whom our thanks are tendered: Dr. Raleigh Clarke, Dr. W. Davis, Major-General R. M. Downes, Dr. Perry Ham, Dr. T. A. F. Heale, Dr. W. G. D. Upjohn, and the Editor of The Medical Journal of Australia.

The thanks of the Council are due to the Medical Secretary and the office staff for the work they have done during what has been a very strenuous year.

On behalf of the Council,

D. ROSEBY, President. ROY F. WATSON, Honorary Secretary. C. H. DICKSON, Medical Secretary.

INSTALLATION OF THE PRESIDENT FOR 1945.

Dr. D. Roseby installed Dr. John Dale as President for the ensuing year. Dr. Dale thanked the members for his election.

PRESIDENT'S ADDRESS.

Dr. D. Roseby then read his retiring President's address (see page 1).

VOTES OF THANKS.

Dr. Gerald Weigall proposed and Dr. J. Newman Morris seconded a vote of thinks to Dr. Roseby for his address and to Dr. W. E. Harrison and Dr. Eileen FitzGerald, retiring members of the Council. The vote of thanks was carried by acclamation.

SCIENTIFIC.

A MEETING of the New South Wales Branch of the British Medical Association was held on September 21, 1944, at Sydney Hospital, Sydney. The meeting took the form of a series of clinical demonstrations by members of the honorary medical staff of the hospital.

Amyotrophic Lateral Sclerosis.

DR. E. H. STOKES showed a man, aged sixty years, suffering from amyotrophic lateral sclerosis. The patient's illness

had commenced in November, 1940, when he suddenly found that he had lost the use of his legs. He was admitted to hospital, and in addition to the paralysis of his legs it was noted that he was suffering from retention of urine. Control of the bladder was regained after catheterization for two days and had been maintained since that time without recourse to instrumentation. At the time of his admission to hospital it was found that his knee jerks were exaggerated and that the plantar reflexes were extensor (Babinski) in In addition double ankle clonus was noted. patient complained also of numbness of the legs, a symptom which Dr. Stokes considered was of the nature of a paræsthesia, as no sensory changes were elicited. stay in hospital of twenty-two weeks, during which period one cubic centimetre of "Vibex" (50 milligrammes of thiamin chloride) was administered intramuscularly every second day, he was discharged and advised to attend the out-patient department. He was able to walk with the ald of a stick and resumed his work as a printer's reader. His condition was unchanged until May, 1944, when he noticed difficulty in writing and a feeling of numbness in his hands. He was readmitted to hospital. On examination, slight wasting of the muscles of the thenar and hypothenar eminences was Fibrillary twitching of various muscles was seen. was administered again and he was discharged from hospital early in August. During his two periods in hospital various pathological investigations were performed with negative results. The blood serum and the cerebro-spinal fluid both failed to respond to the Wassermann test. chloride, protein and glucose contents of the cerebro-spinal fluid were normal and the colloidal gold test of Lange produced a negative result. Normal hæmatological findings were also noted. Dr. Stokes pointed out that although the onset of the disease was associated with urinary retention, which was atypical, the physical findings were characteristic of the classical amyotrophic lateral sclerosis described by Whether the patient had derived benefit from Charcot. was problematical, because, although there was apparent improvement, the neurological findings were unaltered and in many cases the progress of the disease was

Leber's Optic Atrophy.

Dr. Stokes's second patient was a man, aged twenty-seven years, who had noticed that his sight had deteriorated seriously during a period of five weeks eleven years previously. Since that time the condition of his eyesight had evidently remained stationary. On examination double optic atrophy probably of the primary type was found. The visual fields were concentrically contracted and central scotomata were present. The blood serum failed to react to the Wassermann test and Kahn's flocculation test produced a negative response. An X-ray examination of the skull showed the pituitary fossa to be normal in size and shape. An elder brother, aged twenty-nine years, was suffering from progressive muscular atrophy. No hereditary and no familial history of blindness was obtained. Dr. Stokes considered that in spite of the absence of a heredo-familial history, the patient was probably suffering from Leber's disease of a sporadic type, as the age of onset was typical and there was no evidence of other causes of optic atrophy such as disseminated sclerosis, diabetes mellitus, syphilis, poisoning by lead, methyl alcohol, tobacco or quinine, or pituitary tumour.

Spontaneous Pneumothorax with Recurrence.

Dr. Stokes's third patient was a man, aged twenty-three years, who had suffered from a complete right-sided pneumothorax in the middle of November, 1942. At the end of March, 1943, the right lung had completely expanded. He was well until June, 1944, when he suffered from a recurrence of the pneumothorax. At the time of the meeting the right lung was almost completely reexpanded. Dr. Stokes pointed out that in this case, as in most examples of spontaneous pneumothorax, there was no evidence of pulmonary tuberculosis, and that recurrences of spontaneous pneumothorax were not uncommon.

Pulmonary Tuberculosis Complicated by Diabetes Mellitus.

The last patient shown by Dr. Stokes had been exhibited at a meeting held at Sydney Hospital in September, 1943. Since that time his pulmonary condition had continued to improve. Dr. Stokes considered that it would interest the members to note the patient's favourable progress in spite of the combination of two serious diseases.

Skiagrams of Clinical Interest.

Dr. Stokes then demonstrated skiagrams from three cases to illustrate clinical points of importance.

Pulmonary Tuberculosis and Pregnancy.

The patient was a woman, aged twenty-five years, who at the time when the first skiagram was taken was three months pregnant. The patient had lost about one stone in weight in the preceding six weeks. Although crepitations were heard in the left apical region, the X-ray film revealed calcified areas in the upper zone of the left lung. It was considered that the loss of weight was due to the vomiting of pregnancy, and it was decided not to interrupt the pregnancy. The patient was given a sedative mixture and her condition improved. Later skiagrams showed that the pulmonary condition had not advanced. At the time of the meeting she was almost seven months pregnant. The patient was a woman, aged twenty-five years, who at

Multiple Gummata of Skull.

The next skiagrams demonstrated by Dr. Stokes were from a woman, aged fifty-five years, who had suffered from loss of weight and pain in the right side of the chest. A loss of weight and pain in the right side of the chest. A swelling the size of a large pea, which had appeared in the left frontal region, had been incised and glairy fluid had been evacuated. The wound had not healed. A skiagram of the skull revealed multiple areas of absorption which resembled those produced by secondary metastatic deposits. The blood serum was found to give a positive reaction to the Wassermann test. A mixture containing potassium iodide and mercury was prescribed and the lesions rapidly resolved. A skiagram taken six months after the original film showed the lesions to have almost completely disappeared. anneared.

Pneumothorax at the Apex of the Left Lung.

The last skiagram was from a man, aged thirty years, who was suffering from pulmonary tuberculosis. A localized pneumothorax had been present in the left apical region for over two years.

Electrocardiograms.

Dr. Stokes then showed an electrocardiogram revealing right ventricular strain, from a boy, aged five years, suffering from pulmonary stenosis, and also electrocardiograms showing left ventricular strain from a woman, aged fiftythree years, suffering from hypertensive arteriosclerosis.

Clinical Photographs.

Dr. Stokes finally showed a series of clinical photographs. The conditions illustrated included gout, thyreotoxicosis, myxœdema, Bell's palsy, Charcot's disease of the knee joints and perforating ulcer of the foot. The photographs were taken by Mr. Appleby, photographer to the Sydney Hospital.

(To be continued.)

NOTICE.

THE General Secretary of the Federal Council of the British Medical Association in Australia has announced that the following medical practitioner has been released from full-time duty with His Majesty's Forces and will resume civil practice as from the date mentioned:

Dr. Ian C. James, 33, Collins Street, Melbourne (January 4, 1945).

Correspondence.

"TALKING BOOKS" FOR WAR-BLINDED SERVICEMEN.

Sir: The problem, numerically, of war-blinded servicemen in Australia has not yet become a major one; but it may easily do so. Their physical and psychological care is arduous and difficult, and requires trained personnel, untrained aids doing more harm than good. An admirable example has been set by the South Australian Division of the Australian Red Cross Society under the guidance of its Deputy Director of Social Services, who, for more than a year, has been training "war-blinded aids" in the care of afflicted servicemen. Lectures and demonstrations have

been arranged on all phases of the work, and these women

aids now stand prepared to serve at a moment's notice.

The society has received information from the Librarian of Congress, Washington, on "talking books" for the blind. I felt that details of these might interest the profession,

It telt that details of these might interest the profession, both service and civilian.

A "talking book" is a twelve-inch, double-faced record with 150 to 200 grooves to the inch and played at the slow speed of thirty-three revolutions per minute. An entire book of average size is recorded in about sixteen records, and about fifteen minutes are needed for the playing of each side. Special slow-speed "Victrolas" were developed, and the Library of Congress manufactures and distributes them free of charge to the ready blind of America. free of charge to the needy blind of America. Machines are loaned through State agencies to individual blind borrowers. This service has been especially made available to warblinded servicemen. The Congressional Library also distributes the books through twenty-seven regional libraries. tributes the books through twenty-seven regional libraries. This system is now functioning in England under the chairman, Sir Ian Fraser, of Saint Dunstan's. A "talking book" machine weighs about 33 pounds and is 21 inches long and 15 inches high. Machine and records are packed in special mailing containers, and are sent free of charge throughout the country by land, sea and air. Twenty thousand of these machines have been built in America largely by blind workmen as a Federal Emergency Relief project.

This is a truly remarkable service, and its benefits to the

This is a truly remarkable service, and its benefits to the blind need no emphasis. Much of the great literature of the world has been recorded by readers with voices carefully selected for their pleasing modulation and pitch. It is reported that *The Reader's Digest* is now available by this means. Australia must be well prepared for her warblinded men, and I have urged the Australian Red Cross Society to negotiate for the gift or purchase of several of these meablings thus furthering the subgridit work which these machines, thus furthering the splendid work which

they have already begun.

Yours, etc.,

GRAHAM ANDREW, M.B., B.S., Squadron Leader, Royal Australian Air Force.

December 13, 1944.

DUODENAL ULCER.

Sir: During the last twelve months I have treated six cases of duodenal ulcer, and at the moment I am treating a seventh. All cases were proven cases of duodenal ulcer by X-ray and other investigations. All of them were cases of years' duration, all suffering from very intense pain and all giving histories of intermittent hæmorrhages. All had been on the usual treatment of alkaline powders, paraffin oil, special diet et cetera.

I can, of course, report on a very small number of cases, but the fact that results in most cases have been encouraging and spectacular, has induced me to record these results with the hope that many other practitioners may try this treatment for this most distressing and incapacitating affliction.

I was very much impressed by the extraordinary results that Dr. C. M. Trippe (United States of America) had published on the treatment of duodenal ulcer with "Metaphen 1:500. Sol." (Abbott) by oral administration.

"Metaphen 1:500. Sol." (Abbott) by oral administration. With the first patient, whom I persuaded to let me try this treatment on, I was not brave or bold enough to commence with the initial three or four cubic centimetre dose as recommended by Dr. Trippe; so I commenced with one cubic centimetre. As I observed no ill effects I increased it to two cubic centimetres the next day, and three cubic centimetre dose. However, in the following commenced with the initial three cubic centimetre dose. centimetre dose.

centimetre dose.

When I commenced on the second cas immediate discontinuance of all medicine taking, and instead of his three hourly feed to three daily meals after the second day the "Metaphen", but with certain cautions a Of these six cases, four are apparently quanty years of much suffering, and are enjolike other people. The other two wern patients: one was prone to alcohol discovered, he persisted with it during other one had suffered from terrible become a morphia addlet, as become a morphia addict, ar him, and was most unr

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The seventh case is in the course of treatment now. He is a man, aged fifty-three years. His case is one complicated by acute asthma since boyhood, and duodenal ulcer history for over seven years, during which time he was first treated at the Royal Melbourne Hospital and in latter years by the Alfred Hospital where he attends once a month. Just twelve months ago he had such an acute hæmorrhage that I at once gave him half a grain of morphia with atropine, and had him quickly transferred to the Alfred Hospital, which

place I did not expect him to reach alive.
Eighteen days ago he had one of his dreadful "attacks",
and I later persuaded him to try the "Metaphen" treatment.
I saw him on December 7 and his improvement was most From then until today I had not seen him encouraging. again. As I arrived at his home, a man was outside and he walked inside with me, when I said to him, "I suppose I will find Mr. A. in the same bedroom", walking towards this room, when he replied: "But I am the patient." All I could say was: "Well! Well! But you do not appear to be the same man." He replied that that was what an old friend said to him only this morning when he saw him. cheeks had filled out and his facial expression of pain was gone. I had taken him off all his previous medicines and he was enjoying the same meals that the rest of his house-hold was having. In those fifteen days he had only had one very slight attack of pain, which before was both severe and daily. Previously when I applied gentle digital pressure to the gastric area, this would cause severe pain, and today, firm pressure he scarcely felt.

I order the "Metaphen" thus:

R

"Metaphen 1:500. Sol." (Abbott) 2 fl. oz.

Glycerin 1 fl. oz.

Aq. Cinnam. ad 4 oz.

Sig: One and a half teaspoonfuls first day, increased next day to two teaspoonfuls in half a tumbler of water, to be taken one and a half to two hours after each meal, three times a day.

Two teaspoonfuls to be taken three times a day for a week.

Second week: two teaspoonfuls night and morning.

Third week: two teaspoonfuls once a day.

Fourth week: two teaspoonfuls every other day, stopping the drug thereafter.

(As recommended by Dr. Trippe.)

To above treatment I found the addition of one five grain chloretone (Parke, Davis and Company) capsule at bedtime helped very much to allay the mental and nervous symptoms associated with this condition, as it induced sleep. Also, I would order an ounce bottle of Linctus Heroini (one-eighth of a grain to the teaspoonful) in case of pain. None of the patients had required more than about three doses of this.

Dr. Trippe claims the same good results in cases of gastric ulcer, but so far I have not tried it on such a case for the reason that I have not had a case of proven gastric

Belgrave. Victoria December 16, 1944. Yours, etc., A. L. J. Peters.

Maval, Wilitary and Air Force.

CASUALTIES.

ORDING to the casualty list received on December 20, in H. S. Raphael, A.A.M.C., Victoria Park, Western reported to have died of illness.

ations and Elections.

oned have applied for election as members Wales Branch of the British Medical

Brookes, M.B., 1938 (Univ. Sydney), jor S. B. Clipsham, 7 Australian Field stralia

s, M.B., B.S., 1943 (Univ. Sydney), Chatswood.

1939 (Univ. Sydney), 3 A.G.H., Australia.

Books Received.

"Trabajos del Dispensario Antituberculoso Central de Santa Cruz de Tenerife: Fasciculo VI; Anos 1942-1943." Director: Dr. T. Cerviá; 1944. Santa Cruz de Tenerife: Imprenta Catolica. 9" × 6½", pp. 86, with illustrations.

"An Introduction to Physical Methods of Treatment in Psychiatry", by William Sargant, M.A., M.B. (Cantab.), M.R.C.P., D.P.M., and Eliot Slater, M.A., M.D. (Cantab.), M.R.C.P., D.P.M.; 1944. Edinburgh: E. and S. Livingstone Limited. 8½" × 5½", pp. 181. Price: 8s. 6d. net.

"Materia Medica: Pharmacy Dangerous and Thomas

"Materia Medica: Pharmacy, Pharmacology and Thera-peutics", by William Hale-White, K.B.E., M.D. (London), M.D. (Dublin), L.L.D. (Edinburgh); Twenty-Sixth Edition, revised by A. H. Douthwaite, M.D., F.R.C.P.; 1944. London: J. and A. Churchill Limited. 74" × 4", pp. 544. Price: 14s. Churchill Limited.

Diary for the Wonth.

JAN. 8 .- New South Wales Branch, B.M.A.: Executive and

JAN. 8.—New South Wates Branch, B.M.A.; Executive and Finance Committee.

JAN. 9.—New South Wates Branch, B.M.A.; Council Quarterly.

JAN. 12.—Queensland Branch, B.M.A.; Council Meeting.

JAN. 26.—Queensland Branch, B.M.A.; Council Meeting.

Wedical Appointments: Important Potice.

Medical practitioners are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phænix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Melbourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential Association, Proprietary, Limited; Federated Mutual Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appoint-ments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

South Australian Branch (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Fractice appointments in Western Australia

Editorial Motices.

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SOCIAL MEDICINE.1

By SIR RAPHAEL CILENTO, Kt., M.D., Director-General of Health and Medical Services, Queensland, and Honorary Professor of Social and Tropical Medicine in the University of Queensland.

There seems to be considerable doubt as to the real meaning of the term "social medicine". To some it suggests the study of the so-called "social diseases"—that is, venereal diseases; some extend the term to include tuberculosis; some expand it to include all industrial and occupational diseases; at the other end of the scale are those who regard it as a term related to projects for the socialization of the medical profession. Some have made it wide enough to include almost a new philosophy of life; others have reduced it to the humble status of "preventive medicine", that term being used in the restricted sense in which it is popularly employed.

The editor of the journal *The Medical Officer* probably gave the best definition of social medicine when he made the following statement:

It seeks to explore all human activities with a view to finding out which are salutary and which are the reverse—using medicine as the yardstick, and to seek the furtherance of the former and the suppression of the latter; in other words, treating all that appertain to man as physiological or pathological agents.

There are two other appropriate extracts that I should like to quote. Lord Dawson of Penn, in a brief address upon his assumption of the presidency of the British Medical Association in England on September 22, 1943, said:

Medicine does not stand alone: it stands in relation to the whole social organism. . . . The progressive quickening of the social conscience is an outstanding feature of this century, and it has found expression in the humanizing of industry, and in a body of social effort without precedent and a body of legislation to improve the health and welfare of the people. But if we pause to inquire whether the achievements of social reform between the last war and this, as judged by the removal of social inequalities and the establishment of social justice, were effective, our answer would have to be in the negative. I need but instance housing, social security, medical services and education; there has been and there still is a sense of frustration in the community. To focus on our special concern, is it not a reproach in view of the way medical knowledge has marched ahead, that a corresponding health and medical service has not been rendered available to all citizens long ere this?

Dr. John Kershaw put the matter equally bluntly, when he made the following statement:

The life of the common man in the twentieth century has, so far, been a thing of which humanity has had every reason to be ashamed. His day, at best, has been made up of eight or more hours of work, to which he was driven by necessity, and not led by inclination; ten or more hours of rest and essential physical and physiological activity, and a few brief hours of crude, emotional escape from reality in the cinema, at the dog-track, through alcohol, or in some similar fashion. . . . The choice that faces medicine is quite plain. Is it to continue to render crude first aid to the victims of capricious circumstance, or is it to take the more adventurous course of endeavouring to influence circumstances?

Social medicine in this sense is truly expressive of a completely new approach to the whole subject of medical care, and includes all its aspects; or, if you like to put it another way, the study and practice of present-day medicine must direct equal attention to the medical, the surgical and the social aspects. Moreover, the importance of this new approach is recognized by the establishment of the first professorship of social medicine in England at the University of Oxford in 1943. As you will recall, the University of Queensland had the honour of establishing the first professorship in Australia in 1937.

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 $^{^{\}rm I}$ Read at a meeting of the Queensland Branch of the British Medical Association on October 6, 1944.

have the opportunity should make a point of seeing a cinematograph film entitled "World of Plenty" that was recently screened in Sydney by the New South Wales Department of Public Health.

The second section of the declaration is based on the belief that lasting peace can be established only if it is built on social justice. This section contains five statements, two of which may be regarded as of domestic interest to the International Labour Organization. The other three are as follows:

 All human beings, irrespective of race, creed or sex, have the right to pursue both their material well-being and their spiritual development in conditions of freedom and dignity, of economic security and equal opportunity.

The attainment of the conditions in which this shall be possible must constitute the central aim of national and international policy.

3. All national and international policies and measures, in particular those of an economic and financial character, should be judged in this light and accepted only in so far as they may be held to promote and not to hinder the achievement of this fundamental objective.

This section is really introductory to the next, which is the one that holds most interest for medical practitioners; in fact its clauses cover the whole range of sociological medicine. The full text of the section is as follows:

The Conference recognises the solemn obligation of the International Labour Organisation to further among the nations of the world programmes which will achieve:

(a) full employment and the raising of standards of

(b) the employment of workers in the occupations in which they can have the satisfaction of giving the fullest measure of their skill and attainments and make their greatest contribution to the common well-being;

(c) the provision, as a means to the attainment of this end and under adequate guarantees for all concerned, of facilities for training and the transfer of labour, including migration for employment and settlement;

(d) policies in regard to wages and earnings, hours and other conditions of work calculated to ensure a just share of the fruits of progress to all, and a minimum living wage to all employed and in need of such protection;

(c) the effective recognition of the right of collective bargaining, the co-operation of management and labour in the continuous improvement of productive efficiency, and the collaboration of workers and employers in the preparation and application of social and economic measures;

(f) the extension of social security measures to provide a basic income to all in need of such protection and comprehensive medical care;

(g) adequate protection for the life and health of workers in all occupations;

(h) provision of child welfare and maternity protection; (i) the provision of adequate nutrition, housing and facilities for recreation and culture;

(j) the assurance of equality of educational and vocational opportunity.

In the fourth section the conference pledges the cooperation of the International Labour Organization with international bodies entrusted with the task of securing the utilization of the world's productive resources and with the promotion of the health, education and well-being of all peoples. In the last section the conference declares that the principles set out in the declaration are fully applicable to all peoples everywhere, and that, while the manner of their application has to be determined with due regard to the stage of social and economic development reached by each people, their progressive application to peoples who are still dependent, as well as to those who have already achieved self-government, is a matter of concern to the whole civilized world.

The world is a sick world. But the sick world can be recovered of its sickness. Hope is the watchword for the new year. During 1945 many unexpected things may happen; but other happenings can be planned and brought

to pass, happenings that would find a place in the programme of any world conference called for the betterment of humanity. The road that we shall have to travel will not be easy. The first requisite to success is a will to succeed; the second is a willingness to work, and this applies to every member of every section of the community; the third is a tolerance of viewpoints different from one's own, a readiness to admit that the other fellow is sincere and is not necessarily wrong; the fourth is an ability to give and take—and in that order.

Current Comment.

THE SURGICAL TREATMENT OF PATENT DUCTUS ARTERIOSUS.

It was only in 1939 that the first successful ligation of a persistently patent ductus arteriosus was performed, and within two years the first success in a case complicated by bacterial infection was recorded. It is with these infected cases that a recent article by Oswald S. Tubbs is concerned, but he gives a good account of the condition, its cause, effects and treatment.1. Nine patients suffering from bacterial endocarditis associated with patent ductus arteriosus were operated on by Tubbs, and six of the patients are well and apparently cured. Tubbs points out that the ductus, connecting the aorta with the pulmonary artery in the fœtus, is 1.5 centimetres long in the full term fœtus and 0.75 centimetre in diameter. Since in none of his cases, even in adults, did the length of the vessel exceed 1.5 centimetres, nor were the ligatures placed more than 0.75 centimetre apart, it is evident that in attempting the closure of so short and relatively wide channel, where retraction will take place on division, ligature alone can be safely performed. The signs of this congenital condition are well known, and need not be referred to here, and the seriousness of the defect is also evident. Not only is there a considerable shunt of arterial blood from the aorta to the pulmonary vessels, imposing a great strain on the heart, as is always seen in cases of large arterio-venous communications, but there is also a grave risk of infection by a Streptococcus viridans in the persisting ductus. In the operations on this series of patients it was first thought that division of the ductus between ligatures might be possible, but this idea was rightly rejected as dangerous. Fortunately simple ligation proved to be effective in a gratifying proportion of successful cases.

Tubbs describes and illustrates the technique used by him following that described by Gross. The incision ran through the second left intercostal space, and with removal of the second and third costal cartilages gave ample exposure, though the actual freeing of the ductus for ligature, particularly on its postero-medial surface, was often difficult and worrying. The anæsthetic used for most of the patients was cyclopropane and oxygen; this was found to favour shallow respiration without causing anoxymia.

It is interesting that simple ligation has cured so many patients who survived this delicate operation. The experience of Tubbs has coincided with that of other surgeons, and in various parts of the world now there are still living quite an appreciable number of patients who have seemingly been cured of this infection, which is almost uniformly fatal when occurring in other sites within the heart itself. Tubbs discusses the rationale of simple ligation as a surgical measure in these cases, and considers that the most reasonable hypothesis is that of Touroff. This is based on the belief, generally held, that bacteria circulating in the blood are rapidly removed or destroyed, and further supposes that the reduction of force in the blood stream, even if the ductus is not completely occluded, causes fragmentation of thrombus, such smaller thrombi being then filtered off by the lungs. It would seem

¹ The British Journal of Surgery, July, 1944.

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reasonable to assume that under these conditions any remaining thrombus would become organized under static conditions. Whatever be the true explanation, it is abundantly proved that infection per se is not a contraindication to operation, and indeed, even the presence of small systemic emboli need not deter the surgeon.

No doubt cases of patent ductus arteriosus are not very common, but infection is a frequent event in the condition, and it is important to recognize the abnormality, preferably before the Streptococcus viridans has colonized in a site that suits it so well. It is only fair, therefore, when the existence of this lesion is suspected to have the diagnosis confirmed, and the question of operation may then be laid before the patient or parents, with its risks and its hopes. Already Australian experience is growing in the surgery of this condition, and the successes must be multiplied in the future.

GREY HAIR.

REPORTS have been made from time to time on the effect of calcium pantothenate and para-aminobenzoic acid on the pigment of hair in various animals including man. In animals whose fur has a market value this might conceivably be of importance; in man the greying of hair per se does not seem of much medical interest except in a clinical history, but, of course, its cosmetic significance would at once make the makers and purveyors of restorers of youth prick up their ears. Harold Brandaleone, Elizabeth Main and J. Murray Steele have carried out a set of careful experiments with the above-mentioned substances, designed to ascertain what is their effect, if any, on grey hair in both the young and old with grey hair. They traverse the literature and remind us that deficiency of a vitamin B filtrate factor has been found to cause greying of the fur in rats and dogs, and administration of certain of these factors has been thought to darken the fur once more. Para-aminobenzoic acid was found to be one of the substances involved, but apparently it was not the only one, and later work indicated that calcium pantothenate was also concerned. Favourable results have been reported following the administration of these substances in considerable numbers of human subjects with grey hair, but critics have assailed the accuracy of these observations. The present investigation included three groups of people: nineteen elderly people both men and women (over fiftyfive years of age) in hospital with chronic medical maladies such as arthritis, arterial disease et cetera, eight normal young women (aged twenty-nine to thirty-eight years) with greying hair, and six women aged thirty-three to forty-two years with prematurely grey hair. Various doses of one or other or both of the test substances were given, together with brewer's yeast, over periods of six to eight months. No ill effects were observed. The colour of the hair was checked by photographs and the taking of hair samples every month, and two observers recorded their opinions on viewing the patients at least every four weeks. Photographs were not found to be valuable evidence. because slight differences in distance or lighting caused considerable alteration in the apparent colour of the hair. Clippings were found to be of more value, for a distinct difference must be apparent in the hair as a whole before it is evident in the clippings. A yellowish or greenish tint was sometimes noted during the first few months, but it was not always persistent. Some increase in lustre or vigour of hair growth was observed in a few cases. only two was a definite tendency to restoration of the original colour recorded. In these cases the hair gradually became greyer again after the suspension of the treatment. The authors suggest that there may be something in the idea of other writers that the proportion of paraaminobenzoic acid to calcium pantothenate may be of some significance in bringing about greying of the hair or its reversal, but they agree also that there surely must be other factors involved. There is, of course, a drawback in

the use of para-aminobenzoic acid, for during its administration sulphonamides cannot be given with due effect. Perhaps in passing it is worth while to draw attention to the use of the word "achromotrichia"; those who wish discreetly to describe the greying of hair may thus bring Greek to their aid, though it might appear obscure whether the word means "absence of pigment in the hair" or "absence of pigmented hair". In any case it cannot be claimed as yet that much success has been gained in attempts to reverse the bleaching effect of time, stress or lack of some accessory substances on the hair of men and women. Long ago Ponce de Leon, so it is said, sought the Fountain of Youth, but in vain, and even in the products of the modern laboratory we have not found the fabled elixir.

A BIOLOGICAL EINSTEIN.

It was only to be expected that when Einstein introduced his revolutionary conceptions of the space-time continuum with its departures from conventional geometry, something similar should be attempted in connexion with the problems of life. Of course, votaries of Einstein, like votaries of wireless, are well represented in mental hospitals; but biology has been waiting for a presentation of life's activities from the standpoint of non-Euclidean postulates and theorems which would have sufficient plausibility and consistency to warrant publication in a scientific journal under sane editorship. This has at last appeared, and in "Problems of Biogeochemistry", by a Russian author, W. I. Vernadsky, member of the Academy of Science of the U.S.S.R., we are offered an exposition of a space occupied by living matter which is different from the space occupied by the inert.1 The intrinsic quality of the space within a living organism is, we are told, distinguished by polar vectors and is marked by symmetries characteristic of Riemann's geometry. There are no straight lines and no plane surfaces in life. Above all there is marked dextrality or sinistrality in life space conditioning the exclusive choice of an optical isomer, dextrorotary or lævorotary in polarimetric phraseology. The author lays great stress on this dextrality and sinistrality. He also points out that the range of size of living things is very small compared with the range of size of inanimate matter from the electron to the star and endeavours to fit this in with his scheme. Again time in the realm of the living is not the geometric time of Minkovsky, nor is it the time of mechanics and theoretical physics as with Newton. One misses in this learned discourse the hypothesis that biological time might display inosculating twists and kinks, for there is no greater difference between the living and the non-living than that in the inanimate world all action is determined by the past and with no reference to the future, there is indeed no thought for the morrow, whereas every living organism has its activities conditioned more y an anticipated future than by a registered past. In 'ernadsky's opinion the Einstein conception of the cosmos is really simple; on the other hand when we come to biology we strike complexities which demand the creation of a new geometry far more involved than those of Lobachevsky and Riemann. No doubt we shall be treated one of these days to an exposition of life's manifestations couched in a new and terrifying mathematical symbolism which only half a dozen human beings can understand or at least declare they understand. The mathematical physicist has told us that the conception of radiant energy as transverse waves in an elastic medium is utterly out of date; the energy is transmitted in discrete quanta and an elastic ether is dismissed as a fairy tale. Nevertheless the practical radio expert remains quite indifferent to these abstruse concepts and continues to give the "listener in" programmes in which wave-lengths are very specifically set out. In similar manner the physician will, we imagine, continue to estimate sugar in blood and urine without consideration of his patient's intracellular non-Euclidean frames of reference.

¹ The American Journal of the Medical Sciences, September, 1944.

¹ Transactions of the Connecticut Academy of Arts and Sciences, June, 1944, page 483.

Abstracts from Wedical Literature.

PATHOLOGY.

A Mixed Tumour of the Salivary Gland Type on the Left Hand.

According to Benjamin Highman (Archives of Pathology, June, 1944) a mixed tumour of the salivary gland type occurred on the lateral surface of the left hand of an Indian man, aged eighty years. Ten similar tumours occurring elsewhere than on the head and neck were collected from the literature. All the tumours were on the extremities, six being on the hands. Trauma is suggested as a possible predisposing factor. The view is advanced these tumours are essentially epithelial in origin, possibly derived from sweat glands, and that the stromal portions, particularly the cartilaginous and myxomatous tissues, are epithelial products.

Late Cerebral Sequelæ of Rheumatic Fever.

Walter L. Bruetsch (Archives of Internal Medicine, June, 1944) shows late sequel of rheumatic fever that a is obliterating endarteritis, which usually develops while the patient is otherwise in good health. If the vascular process involves the small meningeal and cortical vessels, gross and microscopic infarctions in the grey matter of the brain will result, producing a variety of mental symptoms. This type of cerebral involvement has been termed "rheumatic brain disease" It represents a chronic infectious process in the same sense as rheumatic disease. Although widespread clinically manifest obliterating Although widespread arteritis seems to occur in only a small number of patients with rheumatic heart disease, the possibility of the development of rheumatic endarteritis in such persons appears to be ever present. Rheumatic fever in the form of this late cerebral sequel has been found to be an important factor in the The fact causation of mental illness. that rheumatic heart disease is several times more frequent among mentally ill patients than amongst the general population emphasizes this contention. Other late cerebral sequelæ of rheumatic fever are rheumatic encephalitis and cerebral embolism, the latter occurring most often during auricular fibrillation nationts suffering from stenosis.

Primary Lymphogranuloma of the Pharynx.

J. Lachmann (Revue française du Moyen-Orient, May, 1944) reports a case of primary lymphogranuloma (lymphogranulomatome) of the pharynx, manifested in the form of peritonsillar and tonsillar phlegmon. The patient was a healthy Arab, aged thirty-five years, who was admitted to hospital for investigation of a peritonsillar phlegmon. Examination revealed much swelling of the soft palate and the left tonsil, in the upper pole of which an ulcerated area covered with pus was found. In the left jugular region a hard ganglion was present; it was not particularly painful, not adherent to the skin, and was the size of a nut. Vincent's bacillus was found, and the Wassermann test falled to produce a

reaction. As deglutition caused great pain, the phlegmon was incised, but no pus was found; treatment with infrared rays caused the swelling to decrease gradually in size. In view of the presence of the tonsillar and peri-tonsillar swelling on the left side, a biopsy was made. Lymphogranuloma found: various types morphonuclear cells were found in the lymphatic tissue, together with many Sternberg giant cells, in the centre of which were five or six oval globules one or more irregularly lobulated globules. The cells were thus distinguished from Langhans giant cells, the globules of which are found at the periphery. The author comments on the rarity of the condition.

Latent Primary Tuberculosis of the Tonsil.

J. LACHMANN (Revue française du Moyen-Orient, May, 1944) states that he makes it his practice to examine all tonsils that he removes. In the course of such an investigation, he found a primary tuberculous focus in a tonsil removed from a medical man, who had been suffering from recurrent sore throat and joint pains. No abnormality was found in the lungs on clinical and radiological examination. The author points out that latent primary tuberculosis of the lymphatic ring is very rare. In 1908 he reported having found latent tuberculosis of adenoid tissue in 4.3% Other authors have found of cases. latent tuberculosis of the lymphatic ring in 5% to 6% of cases.

Calcification of the Media of the Human Aorta and its Relation to Intimal Arteriosclerosis, Aging and Disease.

HERMAN T. BLUMENTHAL, LANSING AND PAUL A. WHEELER (The American Journal of Pathology, July, 1944) present a report showing the frequency of occurrence of, and the influence of age, sex and disease on, calcification of the media of the human The study was carried out by aorta. means of sections prepared by hæmatoxylin and eosin staining and by microincineration. The results showed that calcification of the media precedes the formation of intimal plaques: that medial calcification occurs more frequently than do intimal plaques; that intimal plaques do not occur without calcification of the media or other medial change such as syphilitic considerable connective OF tissue infiltration of the media; and that within a single aorta medial calcification is probably more intense in the immediate vicinity of an intimal plaque than elsewhere. In a few observations it was noted also that calcification of the human aorta was more pronounced in the abdominal than in the thoracic portion. Calcification of the media of the aorta was shown to be primarily a function of age and was not influenced by sex and various chronic infectious diseases. However, examination of specimens from hypertensive persons between the ages of thirty and sixty years revealed considerably more medial calcification than in the trols". Of 42 cases of syphilitic acritits, in 33 no medial calcification was found and in nine only slight calcification of the media was present. syphilitic The relationship between calcification of the media of the human aorta and the loss of elasticity and contractility

with age, as well as the possible relationship of these changes to the formation of intimal plaques, is discussed.

The Effects of Sulphonamide Drugs on the Blood.

ROY R. KRACKE (American Journal of Clinical Pathology, April, 1944) gives a summary of the effects of sulphonamide drugs on the blood. The sulphonamide drugs, including sulphanilamide, sulphapyridine, sulphathiazole and diazine, produce similar if not identical effects on the blood. The mechanism of cyanosis from sulphanilamide is unknown, but evidence indicates that methæmoglobin is partly responsible for the cyanosis, in addition to actual staining of the blood cells by the purple oxidized drug. These drugs are capable of producing serious degrees of acute hemolytic anæmia, and evidence indicates that all patients suffer from accelerated destruction of red cells. These drugs cause agranulocytosis in a few patients; this occurs less frequently than does hæmolytic anæmia, but the prognosis is much worse. The sulphonamide drugs also are capable of depressing the level of blood platelets, with resulting hæmorrhagic manifestations. An occasional patient may develop a leuchæmoid reaction, and a large number of leuchæmic patients give a history of previous treatment with sulphonamide drugs. Every patient should have adequate hæmatological studies, in both the early and the late stages, to avoid these complications.

The Renal Circulation in Shock.

HENRY D. LAUSON, STANLEY E. BRADLEY AND ANDRE COURNAND, with the technical assistance of Vera Vessey Andrews (The Journal of Clinical Investigation, May, 1944), have investigated the changes in renal vascular dynamics resulting from peripheral circulatory failure by means of the clearance methods in 35 human subjects. following conclusions may be drawn.
The rate of glomerular filtration and effective plasma flow are reduced in practically every case of shock. The reduction is variable, but roughly parallels the degree of shock. In most cases, the decrease is greater than can be accounted for solely on the basis of reduced arterial pressure, suggesting active vasoconstriction in the renal The relationship between the renal blood flow and general circulation has been expressed in terms of two calculated values: the renal fraction which designates the approximate proportion of total blood flow (cardiac output) circulating through the kidneys, and the effective renal vascular renal resistance, which indicates the relation between systemic blood pressure and the renal blood flow. The decrease in renal fraction usually observed reveals that a smaller proportion of the cardiac output flows through the kidneys, indicating that blood is shunted away from the kidneys during shock. increase in renal resistance indicates that renal vasoconstriction is the mechanism responsible for this redistribution of the circulation. general, the lowest clearances In were associated with lowest blood pH values, but several lines of evidence indicate that acidosis is not the primary cause of decreased renal circulation. On the contrary, renal ischæmia probably augments the acidosis resulting from widenle

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and fifty-five names were added (134 by election, five members were reinstated by payment of arrears, and sixteen members were transferred from other States) and 27 names were removed (fourteen by death, five by resignation, seven by transfer to other States, and one member allowed his subscription to fall into arrears). Honorary medical mem-bers now number thirty-one. Honorary student associates number four. Provisional members number twelve.

The death of the following members and former members is recorded with regret: Dr. R. J. Aitchison, Dr. James Booth, Dr. R. W. Chambers, Dr. Leslie Davies, Dr. B. P. Donald, Dr. J. B. Donaldson, Dr. Gilbert Gocher, Dr. H. St.C. Fordyce, Dr. S. B. Donaldson, Dr. Gilbert Gocher, Dr. H. St.C. Fordyce, Dr. E. H. Fyffe, Dr. E. Frank Lind, Dr. E. Alan Mackay, Dr. J. F. Mackeddie, Sir Henry C. Maudsley, Dr. Ramsay Mailer, Dr. J. C. Morton, Dr. J. H. Nattrass, Dr. V. M. O'Grady, Dr. K. A. Piper, Dr. Helen Shaw, Dr. J. G. Shelton, Dr. R. E. Shuter, Dr. J. F. Ruddall, Dr. J. H. Rutter, Dr. Newport B. White and Dr. J. W. Wilkinson.

Roll of Honour.

Died on Service.

Major Eric Bailhache, Flight-Lieutenant W. R. Brodrick, Major J. F. Chambers, Lieutenant-Colonel Eric Cooper, Captain W. G. Cuscaden, Captain J. F. Davies, Captain C. S. Donald, Surgeon Lieutenant J. M. Gaskell, Captain J. € R. Joyce, Captain G. L. Lindon, Flight-Lieutenant F. H. ∠ord, Major H. F. G. McDonald, Major N. V. McKenna, Surgeon Lieutenant D. N. McKenzle, Lieutenant-Colonel C. P. Manson, Captain A. D. Mawson, Captain J. F. Park, Captain D. J. Shale, Major Z. Schwartz, Flight-Lieutenant Stuart Thomson, Captain S. I. Weir.

Missing on Service.

Surgeon Commander J. R. Hasker, Surgeon Lieutenant-Commander F. H. Genge, Surgeon Lieutenant W. J. McLaren-Robinson, Surgeon Lieutenant-Commander E. M. Tymms.

Prisoners of War.

A list of prisoners of war was published in the 1942 annual report and remains unchanged.

Honours Conferred by His Majesty the King for Services Rendered during the Present War.

C.B.E.—Brigadier H. C. Disher, Brigadier H. G. Furnell, D.S.O., Brigadier W. Hailes, D.S.O., Colonel J. G. Hayden, Brigadier W. W. S. Johnstone, D.S.O., M.C., Brigadier F. K. Norris, D.S.O., Colonel N. L. Speirs.

D.S.O.-Lieutenant-Colonel K. J. J. Dorney, Colonel W. W. Lempriere, Major F. Douglas Stephens.

O.B.E.—Colonel C. W. B. Littlejohn, M.C., Lieutenant-Colonel W. Refshauge, Wing Commander S. F. Reid, Lieutenant-Colonel R. Smibert, Lieutenant-Colonel J. Glyn

M.B.E .- Flight Lieutenant J. Grantley Shelton, Lieutenant-Colonel J. O. Smith, Lieutenant-Colonel Ian Wood.

D.S.C.-Surgeon Lieutenant-Commander E. M. Tymms. M.C.-Captain J. F. Connell, Captain V. E. Sampson.

Meetings of the Branch.

As the lecture room at the Medical Society Hall was occupied by the book and sewing sections of the Red Cross Society, Branch meetings were held at the Royal Australasian College of Surgeons, and the Branch Council expresses its gratitude to the Council of the College for its generosity in making the lecture hall available.

The following meetings were held:

January.-Special meeting addressed by Dr. John Hunter, General Secretary of the Federal Council.

February .- "The Northern Territory", Dr. Hubert Jacobs. March.—A programme of films lent by the Royal Australian Air Force Visual Education Branch, the Depar. nent of Information and John Wyeth and Brother: "Peptic Ulcer", "Scables", "Neuropsychlatry", "A Subject for Discussion".

April.—A symposium on mental testing, at which the speakers were Major J. R. Williams, Major J. V. Ashburner, Dr. E. MacLean and Captain D. W. McElwain. A special meeting was also held in April to discuss the Pharmaccutical Benefits Act.

"The Significance of the Rh Factor", Major Lucy Ман.-Bryce and Dr. Vera Krieger.

June .- The sixth Triennial Syme Memorial Lecture: "The Control of Medical Equipment in a Nation at War", Sir Alan July.—A discussion on penicillin at which the opening speakers were Captainn V. Bazeley, Major R. Officer and Colonel C. W. B. Littlejohn.

August .- "Tropical Diseases in Returned Soldiers". Colonel H. Turnbull.

September.—"Medical Education and Research: Impressions of an American Visit", Dr. F. M. Burnet. A special meeting was also held in September at the Public Lecture Theatre, Arts Building, University of Melbourne, which was addressed by Sir Howard Florey, the subject of his address being "Penicillin"

October.-The eleventh Sir Richard Stawell Oration: "Ten

Years", Dr. S. A. Smith.

November.—"A Medical Psychologist in Japan", Dr. C. I. McLaren.

Retirement of Professor R. Marshall Allan.

On the retirement of Professor Allan from the Council, the following minute was recorded:

The Council of the Victorian Branch of the British Medical Association records with regret the resignation from membership of the Council of Professor R. Marshall Allan. Professor Allan joined the Council in 1931, was President of the Branch in 1937, and its Honorary Secretary in 1942 and 1943, and both as a member of Council and as an officebearer he rendered great service to the Association. Council congratulates Professor Allan on his appointment as Dean of the Faculty of Medicine, and extends to him its good wishes for the future.

Death of Dr. G. C. Anderson.

A cable of sympathy was forwarded to the British Medical Association, London, on the death of Dr. G. C. Anderson, its secretary, who had done so much for the medical profession throughout the British Empire.

Bequest by the Late Dr. R. H. Fetherston.

Under his will Dr. R. H. Fetherston bequeathed to the trustees of the Medical Society of Victoria his debenture holdings in the Australasian Medical Publishing Company, Limited, with the direction that the interest therefrom be used for establishing a triennial lecture on a subject relating to maternal welfare. The first lecture will be delivered in 1945

Sir Howard Florey's Visit.

At a special meeting of the Branch held on September 20. members had the honour and pleasure of hearing an address on "Penicillin" by Professor Sir Howard Florey.

Meeting of Convocation.

In view of the possibility of changes in medical practice arising from action by the Commonwealth Government and the need to more clearly define the policy of the Branch and bring it up to date. Council decided to convene Branch convocation on January 28. The decisions arrived at were later adopted by Council and are now the policy of the

Business of Council.

Throughout the year constant attention has been devoted by the Council and the Organization Subcommittee, which acts as the Medical Planning Subcommittee of the Council, to the proposals which have been advanced by the Com-monwealth Government in relation to the future of medical practice and to the Pharmaceutical Benefits Act. In this connexion eight special Council meetings were held, as it was impossible to deal with the work involved at the ordinary monthly meetings. Decisions on these matters have been conveyed to the Federal Council and members of the Branch have been kept informed of developments by newsletters.

During the year the Association of Friendly Societies of Victoria agreed, without conditions, to an increase in the lodge capitation rate to twenty-six shilling metropolitan and thirty-two shillings country. Subsequently a joint deputation waited upon the Deputy Prices Commissioner, and advice has just been received that the proposed increase is approved.

Following a request from a member employed as a ship's surgeon, representations for a substantial increase in his salary were accepted by the shipping company employing

Representatives of the Council gave evidence to the State Development Committee on the question of future develop-ment and control of hospitals, and to the Parliamentary Standing Committee on Broadcasting regarding broadcast talks on venereal diseases and sex relations. Two new subcommittees were formed during the year—a Publicity Subcommittee to formulate ways and means by which the views of the medical profession might be promulgated to the public, and a Rehabilitation Subcommittee to plan and aid the reestablishment in civil practice of medical officers discharged from the services.

In order to obtain first-hand information of the social security legislation in New Zealand, Dr. Dickson was requested by Council to make a visit to that country. The expense of the visit has been met by the Organization Fund, which was recently established by an increase in the membership subscriptions.

Eederal Council.

The Federal Council met in January in Melbourne, in May in Sydney, and in September in Melbourne. Full reports of the proceedings appear in The Medical Journal of Australia of March 11, 1944, July 15, 1944, and October 28, 1944.

The Branch Council entertained members of the Federal Council at luncheon during the meetings held in Melbourne.

Two conferences between representatives of the Federal Council and the Commonwealth Covernment have been held

Two conferences between representatives of the Federal Council and the Commonwealth Government have been held in recent months, and reference to those conferences will be found in the reports of the proceedings of the Federal Council, published in The Medical Journal of Australia.

During the year the Federal Council capitation fee was increased and the Organization Fund is, at least temporarily, defraying this expenditure, the sum of £556 having already been paid from the fund in this respect.

The Library of the Medical Society of Victoria.

The library has been in constant use throughout the year, despite the absence of many members on service.

A large number of new books has been added, some having been purchased, while others have been donated, and permission is at present being sought from the Department of War Organization of Industry for the construction of additional shelves.

Members of the Library Advisory Subcommittee are thanked for their valuable assistance in the selection of new books.

Presentations to the library during the year have been made by the following, to whom our thanks are tendered: Dr. Raleigh Clarke, Dr. W. Davis, Major-General R. M. Downes, Dr. Perry Ham, Dr. T. A. F. Heale, Dr. W. G. D. Upjohn, and the Editor of The Medical Journal of Australia.

The thanks of the Council are due to the Medical Secretary and the office staff for the work they have done during what has been a very strenuous year.

On behalf of the Council,

D. Roseby, President. Roy F. Watson, Honorary Secretary. C. H. Dickson, Medical Secretary.

INSTALLATION OF THE PRESIDENT FOR 1945.

Dr. D. Roseby installed Dr. John Dale as President for the ensuing year. Dr. Dale thanked the members for his election.

PRESIDENT'S ADDRESS.

Dr. D. Roseby then read his retiring President's address (see page 1).

VOTES OF THANKS.

Dr. Gerald Weigall proposed and Dr. J. Newman Morris seconded a vote of thinks to Dr. Roseby for his address and to Dr. W. E. Harrison and Dr. Eileen FitzGerald, retiring members of the Council. The vote of thanks was carried by acclamation.

SCIENTIFIC.

A MEETING of the New South Wales Branch of the British Medical Association was held on September 21, 1944, at Sydney Hospital, Sydney. The meeting took the form of a series of clinical demonstrations by members of the honorary medical staff of the hospital.

Amyotrophic Lateral Scierosis.

Dr. E. H. Stokes showed a man, aged sixty years, suffering from amyotrophic lateral sclerosis. The patient's filness

had commenced in November, 1940, when he suddenly found that he had lost the use of his legs. He was admitted to hospital, and in addition to the paralysis of his legs it was noted that he was suffering from retention of urine. of the bladder was regained after catheterization for two days and had been maintained since that time without recourse to instrumentation. At the time of his admission to hospital it was found that his knee jerks were exaggerated and that the plantar reflexes were extensor (Babinski) in type. In addition double ankle clonus was noted. The patient complained also of numbness of the legs, a symptom Dr. Stokes considered was of the paræsthesia, as no sensory changes were elicited. After a stay in hospital of twenty-two weeks, during which period one cubic centimetre of "Vibex" (50 milligrammes of thiamin chloride) was administered intramuscularly every day, he was discharged and advised to attend the out-patient department. He was able to walk with the ald of a stick and resumed his work as a printer's reader. His condition was unchanged until May, 1944, when he noticed difficulty in writing and a feeling of numbness in his hands. He was readmitted to hospital. On examination, slight wasting of the muscles of the thenar and hypothenar eminences was noted. Fibrillary twitching of various muscles was seen. "Vibex" was administered again and he was discharged from was administered again and he was discharged from hospital early in August. During his two periods in hospital various pathological investigations were performed with negative results. The blood serum and the cerebro-spinal fluid both failed to respond to the Wassermann test. chloride, protein and glucose contents of the cerebro-spinal fluid were normal and the colloidal gold test of Lange produced a negative result. Normal hæmatological findings were Dr. Stokes pointed out that although the onset of the disease was associated with urinary retention, which was atypical, the physical findings were characteristic of the classical amyotrophic lateral sclerosis described by Whether the patient had derived benefit from "Vibex" was problematical, because, although there was apparent improvement, the neurological findings were unaltered and in many cases the progress of the disease was

Leber's Optic Atrophy.

Dr. Stokes's second patient was a man, aged twenty-seven years, who had noticed that his sight had deteriorated seriously during a period of five weeks eleven years previously. Since that time the condition of his eyesight had evidently remained stationary. On examination double optic atrophy probably of the primary type was found. The visual fields were concentrically contracted and central scotomata were present. The blood serum failed to react to the Wassermann test and Kahn's floculation test produced a negative response. An X-ray examination of the skull showed the pituitary fossa to be normal in size and shape. An elder brother, aged twenty-nine years, was suffering from progressive muscular atrophy. No hereditary and no familial history of blindness was obtained. Dr. Stokes considered that in spite of the absence of a heredo-familial history, the patient was probably suffering from Leber's disease of a sporadic type, as the age of onset was typical and there was no evidence of other causes of optic atrophy such as disseminated sclerosis, diabetes mellitus, syphilis, poisoning by lead, methyl alcohol, tobacco or quinine, or pituitary tumour.

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Spontaneous Pneumothorax with Recurrence.

Dr. Stokes's third patient was a man, aged twenty-three years, who had suffered from a complete right-sided pneumothorax in the middle of November, 1942. At the end of March, 1943, the right lung had completely expanded. He was well until June, 1944, when he suffered from a recurrence of the pneumothorax. At the time of the meeting the right lung was almost completely reexpanded. Dr. Stokes pointed out that in this case, as in most examples of spontaneous pneumothorax, there was no evidence of pulmonary tuberculosis, and that recurrences of spontaneous pneumothorax were not uncommon.

Pulmonary Tuberculosis Complicated by Diabetes Mellitus.

The last patient shown by Dr. Stokes had been exhibited at a meeting held at Sydney Hospital in September, 1943. Since that time his pulmonary condition had continued to improve. Dr. Stokes considered that it would interest the members to note the patient's favourable progress in spite of the combination of two serious diseases.

Skiagrams of Clinical Interest.

Dr. Stokes then demonstrated skiagrams from three cases to illustrate clinical points of importance.

Pulmonary Tuberculosis and Pregnancy.

The patient was a woman, aged twenty-five years, who at the time when the first skiagram was taken was three months pregnant. The patient had lost about one stone in weight in the preceding six weeks. Although crepitations were heard in the left apical region, the X-ray film revealed calcified areas in the upper zone of the left lung. It was considered that the loss of weight was due to the vomiting of pregnancy, and it was decided not to interrupt the pregnancy. The patient was given a sedative mixture and her condition improved. Later skiagrams showed that the pul-monary condition had not advanced. At the time of the meeting she was almost seven months pregnant.

Multiple Gummata of Skull.

The next skiagrams demonstrated by Dr. Stokes were from a woman, aged fifty-five years, who had suffered from loss of weight and pain in the right side of the chest. A swelling the size of a large pea, which had appeared in the left frontal region, had been incised and glairy fluid had been evacuated. The wound had not healed. A skiagram of the skull revealed multiple areas of absorption which resembled those produced by secondary metastatic deposits. The blood serum was found to give a positive reaction to the Wassermann test. A mixture containing potassium iodide and mercury was prescribed and the lesions rapidly resolved. A skiagram taken six months after the original film showed the lesions to have almost completely dis-

Pneumothorax at the Apex of the Left Lung.

The last skiagram was from a non, aged thirty years, who was suffering from pulmonary tuberculosis. A localized pneumothorax had been present in the left apical region for over two years.

Electrocardiograms.

Dr. Stokes then showed an electrocardiogram revealing right ventricular strain, from a boy, aged five years, suffering from pulmonary stenosis, and also electrocardiograms showing left ventricular strain from a woman, aged three years, suffering from hypertensive arteriosclerosis.

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Clinical Photographs.

Dr. Stokes finally showed a series of clinical photographs. The conditions illustrated included gout, thyreotoxicosis. myxœdema, Bell's palsy, Charcot's disease of the knee joints and perforating ulcer of the foot. The photographs were taken by Mr. Appleby, photographer to the Sydney Hospital.

(To be continued.)

NOTICE.

THE General Secretary of the Federal Council of the British Medical Association in Australia has announced that the following medical practitioner has been released from full-time duty with His Majesty's Forces and will resume civil practice as from the date mentioned:

Dr. Ian C. James, 33, Collins Street, Melbourne (January 4, 1945).

Correspondence.

"TALKING BOOKS" FOR WAR-BLINDED SERVICEMEN.

Sm: The problem, numerically, of war-blinded servicemen In Australia has not yet become a major one; but it may easily do so. Their physical and psychological care is arduous and difficult, and requires trained personnel. untrained aids doing more harm than good. An admirable example has been set by the South Australian Division of the Australian Red Cross Society under the guidance of its Deputy Director of Social Services, who, for more than a year, has been training "war-blinded aids" in the care of afflicted servicemen. Lectures and demonstrations have

been arranged on all phases of the work, and these women aids now stand prepared to serve at a moment's notice.

The society has received information from the Librarian of Congress, Washington, on "talking books" for the blind. I felt that details of these might interest the profession.

both service and civilian.

A "talking book" is a twelve-inch, double-faced record with 150 to 200 grooves to the inch and played at the slow speed of thirty-three revolutions per minute. An entire book of average size is recorded in about sixteen records, An entire and about fifteen minutes are needed for the playing of each side. Special slow-speed "Victrolas" were developed, and the Library of Congress manufactures and distributes them free of charge to the needy blind of America. Machines are loaned through State agencies to individual blind borrowers. This service has been especially made available to war-blinded servicemen. The Congressional Library also dis-tributes the books through twenty-seven regional libraries. This system is now functioning in England under the chairman, Sir Ian Fraser, of Saint Dunstan's. A "talking book" machine weighs about 33 pounds and is 21 inches long and 15 inches high. Machine and records are packed in special mailing containers, and are sent free of charge throughout the country by land, sea and air. Twenty thousand of these machines have been built in America largely by blind workmen as a Federal Emergency Relief project.

This is a truly remarkable service, and its benefits to the blind need no emphasis. Much of the great literature of the has been recorded by readers with voices carefully selected for their pleasing modulation and pitch. It is reported that *The Reader's Digest* is now available by this means. Australia must be well prepared for her war-blinded men, and I have urged the Australian Red Cross Society to negotiate for the gift or purchase of several these machines, thus furthering the splendid work which

they have already begun.

Yours, etc.,

GRAHAM ANDREW, M.B., B.S., Squadron Leader. Royal Australian Air Force.

December 13, 1944.

DUODENAL ULCER.

SIR: During the last twelve months I have treated six cases of duodenal ulcer, and at the moment I am treating a seventh. All cases were proven cases of duodenal ulcer by X-ray and other investigations. All of them were cases of years' duration, all suffering from very intense pain and all giving histories of intermittent hæmorrhages. All had been on the usual treatment of alkaline powders, paraffin oil, special diet et cetera.

I can, of course, report on a very small number of cases, but the fact that results in most cases have been encouraging and spectacular, has induced me to record these results with the hope that many other practitioners may try this treatment for this most distressing and incapacitating affliction.

I was very much impressed by the extraordinary results that Dr. C. M. Trippe (United States of America) had published on the treatment of duodenal ulcer with "Metaphen 1:500. Sol." (Abbott) by oral administration.

With the first patient, whom I persuaded to let me try this treatment on, I was not brave or bold enough to commence with the initial three or four cubic centimetre dose as recommended by Dr. Trippe: so I commenced with one cubic centimetre. As I observed no ill effects I increased it to two cubic centimetres the next day, and three centimetres the third day, but hesitated to give the four cubic centimetre dose. However, in the following cases I commenced with the initial three cubic centimetre dose for the first day, and on the next day going on to the four cubic centimetre dose.

When I commenced on the second case I advised the immediate discontinuance of all medicines that he was taking, and instead of his three hourly feeds. I put him on to three daily meals after the second day of commencing the "Metaphen", but with certain cautions about his meals.

Of these six cases, four are apparently quite cured after many years of much suffering, and are enjoying their meals like other people. The other two were unsatisfactory patients: one was prone to alcohol excess and, as I discovered, he persisted with it during the treatment. The other one had suffered from terrible pain, and he had already become a morphia addict, and did not follow directions given him, and was most unreliable therefore.

The seventh case is in the course of treatment now. He is a man, aged fifty-three years. His case is one complicated by acute asthma since boyhood, and ducdenal ulcer history for over seven years, during which time he was first treated at the Royal Melbourne Hospital and in latter years by the Alfred Hospital where he attends once a month. Just twelve months ago he had such an acute hæmorrhage that I at once gave him half a grain of morphia with atropine, and had him quickly transferred to the Alfred Hospital, which place I did not expect him to reach alive.

Eighteen days ago he had one of his dreadful "attacks", and I later persuaded him to try the "Metaphen" treatment. I saw him on December 7 and his improvement was most From then until today I had not seen him encouraging. again. As I arrived at his home, a man was outside and he walked inside with me, when I said to him, "I suppose ne wasked inside with me, when I said to him, "I suppose I will find Mr. A. in the same bedroom", walking towards this room, when he replied: "But I am the patient." All I could say was: "Well! Well! But you do not appear to be the same man." He replied that that was what an old friend said to him only this morning when he saw him. His cheeks had filled out and his facial expression of pain was gone. I had taken him off all his previous medicines and he was enjoying the same meals that the rest of his house-hold was having. In those fifteen days he had only had one very slight attack of pain, which before was both severe and drily. Previously when I applied gentle digital pressure to the gastric area, this would cause severe pain, and today, firm pressure he scarcely felt.

I order the "Metaphen" thus:

"Metaphen 1:500. Sol." (Abbott) 2 fl. oz.

Glycerin 1 fl. oz.

Aq. Cinnam. ad 4 oz.

Sig: One and a half teaspoonfuls first day, increased next day to two teaspoonfuls in half a tumbler of water, to be taken one and a half to two hours after each meal, three times a day.

Two teaspoonfuls to be taken three times a day for a week.

Second week: two teaspoonfuls night and morning.

Third week: two teaspoonfuls once a day.

Fourth week: two teaspoonfuls every other day, stopping the drug thereafter

(As recommended by Dr. Trippe.)

To above treatment I found the addition of one five grain chloretone (Parke, Davis and Company) capsule at bedtime very much to allay the mental and nervous symptoms associated with this condition, as it induced sleep. Also, I would order an ounce bottle of *Linctus Heroini* (one-eighth of a grain to the teaspoonful) in case of pain. None of the patients had required more than about three doses of this

Dr. Trippe claims the same good results in cases of gastric ulcer, but so far I have not tried it on such a case for the reason that I have not had a case of proven gastric ulcer.

Yours, etc., A. L. J. PETERS.

Belgrave. Victoria

December 16, 1944.

anal, Wilitar" an Bir Force.

CASUALTIES.

According to the casualty list received on December 20, 1944, Captain H. S. Raphael, A.A.M.C., Victoria Park, Western Australia, is reported to have died of illness.

ominations and Elections.

The undermentioned have applied for election as members of the New South Wales Branch of the British Medical Association:

Clipsham, Sidney Brookes, M.B., 1938 (Univ. Sydney), NX137564, Major S. B. Clipsham, 7 Australian Field Ambulance, Australia.

Quirk, Donald Francis, M.B., B.S., 1943 (Univ. Sydney).

337, Victoria Avenue, Chatswood. nati, Leo Vivian, M.B., B.S., 1939 (Univ. Sydney), NX83, Major L. V. Armati, 113 A.G.H., Australia. Armatt.

Books Received.

"Trabajos del Dispensario Antituberculoso Central de Santa Cruz de Tenerife: Fasciculo VI; Anos 1942-1943." Director: Dr. T. Cerviá; 1944. Santa Cruz de Tenerife: Imprenta Catolica. 9" × 6\frac{1}{2}", pp. 86, with illustrations.

"An Introduction to Physical Methods of Treatment in Psychiatry", by William Sargant, M.A., M.B. (Cantab.), M.R.C.P., D.P.M., and Ellot Slater, M.A., M.D. (Cantab.), M.R.C.P., D.P.M.; 1944. Edinburgh: E. and S. Livingstone Limited. 8½" × 5½", pp. 181. Price: 8s. 6d. net.

"Materia Medica: Pharmacy, Pharmacology and Thera-peutics", by William Hale-White, K.B.E., M.D. (London), M.D. (Dublin), L.D. (Edinburgh); Twenty-Sixth Edition, revised by A. H. Douthwaite, M.D., F.R.C.P.; 1944. London: J. and A. Churchill Limited. 7½" × 4", pp. 544. Price: 14s.

Diary for the Wonth.

Jan. 8.—New South Wales Branch, B.M.A.: Executive and Finance Committee.

Jan. 9.—New South Wales Branch, B.M.A.: Council Quarterly.

Jan. 12.—Queensland Branch, B.M.A.: Council Meeting.

Jan. 26.—Queensland Branch, B.M.A.: Council Meeting.

Medical Appointments: Important Motice.

MEDICAL PRACTITIONERS are requested not to apply for any appointment mentioned below without having first communicated with the Honorary Secretary of the Branch concerned, or with the Medical Secretary of the British Medical Association, Tavistock Square, London, W.C.1.

Tavistock Square, London, W.C.I.
New South Wales Branch (Honorary Secretary, 135, Macquarie Street, Sydney): Australian Natives' Association; Ashfield and District United Friendly Societies' Dispensary; Balmain United Friendly Societies' Dispensary; Leichhardt and Petersham United Friendly Societies' Dispensary; Manchester Unity Medical and Dispensing Institute, Oxford Street, Sydney; North Sydney Friendly Societies' Dispensary Limited; People's Prudential Assurance Company Limited; Phænix Mutual Provident Society.

Victorian Branch (Honorary Secretary, Medical Society Hall, East Mellourne): Associated Medical Services Limited; all Institutes or Medical Dispensaries; Australian Prudential, Association, Proprietary, Limited; Federated Mutual, Medical Benefit Society; Mutual National Provident Club; National Provident Association; Hospital or other appointments outside Victoria.

Queensland Branch (Honorary Secretary, B.M.A. House, 225, Wickham Terrace, Brisbane, B.17): Brisbane Associated Friendly Societies Medical Institute; Bundaberg Medical Institute. Members accepting LODGE appointments and those desiring to accept appointments to any COUNTRY HOSPITAL or position outside Australia are advised, in their own interests, to submit a copy of their Agreement to the Council before signing.

th Australian Branch (Honorary Secretary, 178, North Terrace, Adelaide): All Lodge appointments in South Australia; all Contract Practice appointments in South Australia.

Western Australian Branch (Honorary Secretary, 205, Saint George's Terrace, Perth): Wiluna Hospital; all Contract Fractice appointments in Western Australia.

Editorial Motices.

Manuscripts forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to The MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be s:ated

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